Safety Data Sheet
EP GROUP 96 PLUS PART A

Safety Data Sheet dated: 5/15/2017 - version 1
Date of first edition: 5/15/2017

1. Identification

Product identifier

Mixture identification:

Trade name: EP GROUP 96 PLUS PART A

Recommended use and restrictions on use

Recommended use: Polyurethane-based adhesive
Restrictions on use: N.A.

Supplier's details

Company: MAPEI INC. (Canada)
2900 Francis-Hughes Avenue
H7L 3J5 - Laval - QC - CAN
Phone: 1-450-662-1212

Emergency phone number

(USA) CHEMTREC 1-800-424-9300
(Canada) CANUTEC 1-613-996-6666

2. Hazard identification

Classification of the product

Flam. Liq. 3	Flammable liquid and vapour.
Skin Sens. 1B	May cause an allergic skin reaction.
Repr. 2	Suspected of damaging fertility. Suspected of damaging the unborn child.
Aquatic Acute 3	Harmful to aquatic life.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.

Label elements

Pictograms and Signal Words

Warning

Hazard statements:

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241.1	Use explosion-proof electrical/ventilating/lighting equipment.

P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260.A	Do not breathe dust or mist.
P264.2	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321.A	Specific treatment (see supplementary instructions on this label).
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.
P370+P378.B	In case of fire, use a dry powder fire extinguisher to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501.A	Dispose of contents/container in accordance with applicable regulations.

Other hazards

None

Ingredient(s) with unknown acute toxicity

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

3. Composition/information on ingredients

Substances

N.A.

Mixtures

Hazardous components within the meaning of WHMIS 2015 and related classification:

List of components

Quantity	Name	Ident. Numb.	Classification
5-10 %	Bisphenol A epoxy resin	CAS:25085-99-8	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411; Skin Sens. 1B, H317
2.5-5 %	Ethylacetate	CAS:141-78-6	Flam. Liq. 2, H225; STOT SE 3, H336
2.5-5 %	Dipropylene glycol dibenzoate	CAS:27138-31-4	Aquatic Chronic 3, H412
1-2.5 %	Silica Sand	CAS:14808-60-7	STOT RE 1, H372; Carc. 1A, H350
0.49-1 %	Nonylphenol	CAS:25154-52-3	Repr. 2, H361; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

Eye irritation

Eye damages
Skin Irritation
Erythema

Indication of immediate medical attention and special treatment needed, if necessary

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

5. Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

In case of fire, use a dry powder fire extinguisher to extinguish.
CO_2 or Dry chemical fire extinguisher.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the hazardous product

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
Hazardous combustion products: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.

Special protective equipement and precautions for fire-fighters

Use suitable breathing apparatus.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand
Wash with plenty of water.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Storage temperature: N.A.

Always keep in a well ventilated place.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Avoid accumulating electrostatic charge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.
Safety electric system.

8. Exposure controls/personal protection

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note

Ethylacetate	OSHA	1400	400	
	ACGIH		400	eye and upper respiratory tract irritation;
Silica Sand	ACGIH	0,025		A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis;

Appropriate engineering controls

N.A.

Individual protection measures, such as personal protective equipment (PPE)

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid
Appearance and colour: Paste white
Odour: characteristic
Odour threshold: N.A.
pH: N.A.
Melting point / freezing point: N.A.
Initial boiling point and boiling range: >38 °C (100 °F)
Flash point: >40 °C (104 °F) Notes: Closed Cup
Evaporation rate: <1.0
Upper/lower flammability or explosive limits: N.A.
Vapour density: >1.0
Vapour pressure: N.A.
Relative density: N.A.
Solubility in water: Insoluble
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Viscosity: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.
Solid/gas flammability: N.A.

Other information

Substance groups relevant properties: N.A.
Miscibility: N.A.
Fat Solubility: N.A.
Conductivity: N.A.

10. Stability and reactivity

Reactivity

It may generate dangerous reactions (See subsections below)

Chemical stability

It may generate dangerous reactions (See subsections below)

Possibility of hazardous reactions

None.

Conditions to avoid

Avoid accumulating electrostatic charge.

Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products

None.

11. Toxicological information

Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

Ethylacetate	a) acute toxicity	LD50 Skin Rabbit > 20 ml/kg
		LC50 Inhalation Mouse = 1500 ppm 4h
		LD50 Oral Rat = 5620 mg/kg
		LD50 Skin Rabbit > 18000,00000 mg/kg
Silica Sand	a) acute toxicity	LD50 Oral Rat = 500 mg/kg
Nonylphenol	a) acute toxicity	LD50 Skin Rabbit = 2031 mg/kg
		LD50 Oral Rat = 580 mg/kg

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

a) acute toxicity

b) skin corrosion/irritation

c) serious eye damage/irritation

d) respiratory or skin sensitisation

e) germ cell mutagenicity

f) carcinogenicity

g) reproductive toxicity

h) STOT-single exposure

i) STOT-repeated exposure

j) aspiration hazard

Substance(s) listed on the IARC Monographs:

Silica Sand Group 1

Substance(s) listed as OSHA Carcinogen(s):

Silica Sand

Substance(s) listed as NIOSH Carcinogen(s):

Silica Sand

Substance(s) listed on the NTP report on Carcinogens:

Silica Sand

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12. Ecological information

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
2.5-5 %	Ethylacetate	CAS: 141-78-6	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 220 mg/L 96h EPA
			a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 484 mg/L 96h IUCLID
			a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 560 mg/L 48h EPA
1-2.5 %	Silica Sand	CAS: 14808-60-7	a) Aquatic acute toxicity : LC50 carp > 10000,00000 mg/L 72h
0.49-1 %	Nonylphenol	CAS: 25154-52-3	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 135 mg/L 96h
			a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 14 mg/L 48h IUCLID
			a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 41 mg/L 96h IUCLID
			a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 13 mg/L 72h IUCLID

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. Disposal considerations

Safe handling and methods for disposal

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. Transport information

UN number

TDG-UN number: UN1993
ADR-UN number: 1993
DOT-UN Number: UN1993
IATA-Un number: 1993
IMDG-Un number: 1993

UN proper shipping name

TDG-Shipping Name: FLAMMABLE LIQUID, N.O.S. (Ethylacetate)
ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (Ethylacetate)
DOT-Proper Shipping Name: Flammable liquids, n.o.s. (Ethylacetate)
IATA-Technical name: FLAMMABLE LIQUID, N.O.S. (Ethylacetate)
IMDG-Technical name: FLAMMABLE LIQUID, N.O.S. (Ethylacetate)

Transport hazard class(es)

TDG-Class: 3
ADR-Class: 3
DOT-Hazard Class: 3
IATA-Class: 3
IMDG-Class: 3

Packing group

TDG-Packing Group: III
ADR-Packing Group: III
DOT Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III

Environmental hazards

Marine pollutant: No
Environmental Pollutant: N.A.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

N.A.

Special precautions in connection with transport or conveyance

TDG:

TDG Special provisions: 16

Department of Transportation (DOT):

DOT-Special Provision(s): B1, B52, IB3, T4, TP1, TP29
DOT-Label(s): 3
DOT-Symbol: N/A
DOT-Cargo Aircraft: N/A
DOT-Passenger Aircraft: N/A
DOT-Bulk: N/A
DOT-Non-Bulk: N/A

Road and Rail (ADR-RID):

ADR exempt: No
ADR-Label: 3
ADR-Hazard identification number: 30
ADR-Transport category (Tunnel restriction code): 3 (D/E)

Air (IATA):

IATA-Passenger Aircraft: 355
IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subrisk: -

IATA-Erg: 3L

IATA-Special Provisions: A3

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subrisk: -

IMDG-Special Provisions: 223 274 955

IMDG-Page: N/A

IMDG-Label: 3

IMDG-EMS: F-E, S-E

IMDG-MFAG: N/A

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15. Regulatory information

Canada - Federal regulations

DSL - Domestic Substances List

DSL Inventory:

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL Inventory:

no substances listed

NPRI - National Pollutant Release Inventory

Substances listed in NPRI:

no substances listed

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

Bisphenol A epoxy resin	is listed in TSCA	Section 8b
Ethylacetate	is listed in TSCA	Section 8b
Dipropylene glycol dibenzoate	is listed in TSCA	Section 8b
Silica Sand	is listed in TSCA	Section 8b
Nonylphenol	is listed in TSCA	Section 8b, Section 8a - PAIR

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

no substances listed

Section 304 - Hazardous substances:

Ethylacetate

Section 313 - Toxic chemical list:

Nonylphenol

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

Ethylacetate	Reportable quantity:	5000	pounds

CAA - Clean Air Act

CAA listed substances:

Nonylphenol	is listed in CAA	Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:

no substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

Silica Sand	Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

Ethylacetate

Silica Sand

Nonylphenol

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

Ethylacetate

Silica Sand

Nonylphenol

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

Ethylacetate

Silica Sand

16. Other information

Code	Description
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer .
H361	Suspected of damaging fertility or the unborn child <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet dated: 5/15/2017 - version 1

Product code: 2273

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

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

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

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

GefStoffVO: Ordinance on Hazardous Substances, Germany.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
KSt: Explosion coefficient.

ERV PARENT

Safety Data Sheet

EP GROUP 96 PLUS PART B

Safety Data Sheet dated: 05/21/2019 - version 2

Date of first edition: 05/15/2017

1. Identification

Product identifier

Mixture identification:

Trade name: EP GROUP 96 PLUS PART B

Recommended use and restrictions on use

Recommended use: Hardener for epoxy-polyurethane based adhesives or sealants

Restrictions on use: N.A.

Supplier's details

Company: MAPEI INC. (Canada)
2900 Francis-Hughes Avenue
H7L 3J5 - Laval - QC - CAN
Phone: 1-450-662-1212

Emergency phone number

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

2. Hazard identification

Classification of the product

Flam. Liq. 2	Highly flammable liquid and vapour.
Acute Tox. 3	Toxic if inhaled.
Skin Corr. 1B	Causes severe skin burns and eye damage.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1A	May cause an allergic skin reaction.
Repr. 2	Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT SE 3	May cause respiratory irritation.
STOT SE 3	May cause drowsiness or dizziness.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.
Aquatic Acute 2	Toxic to aquatic life.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.

Label elements

Pictograms and Signal Words

Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and

if swallowed.

H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER.
P312	Call a POISON CENTER if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (see supplementary instructions on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire, use a dry powder fire extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Other hazards

None

Ingredient(s) with unknown acute toxicity

None

3. Composition/information on ingredients

Substances

N.A.

Mixtures

Hazardous components within the meaning of WHMIS 2015 and related classification:

List of components

Quantity	Name	Ident. Numb.	Classification	Registration Number
25-50 %	Toluene	CAS:108-88-3	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Repr. 2, H361; STOT SE 3, H336; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Acute 2, H401; Aquatic Chronic 3, H412	
20-25 %	2,4,6-Tri(dimethylaminomethyl)phenol	CAS:90-72-2	Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412	
20-25 %	Diethylene triamine	CAS:111-40-0	Acute Tox. 4, H312; Eye Dam. 1, H318; STOT SE 3, H335; Aquatic Chronic 3, H412; Acute Tox. 4,	

			H302; Skin Corr. 1B, H314; Skin Sens. 1B, H317; Acute Tox. 2, H330
5-10 %	Bisphenol A	CAS:80-05-7	Eye Dam. 1, H318; STOT SE 3, H335; Repr. 2, H361; Skin Sens. 1, H317
5-10 %	Diethylenetriamine reaction product with bisphenol A, epichlorohydrin polymer	CAS:68610-56-0	Skin Irrit. 2, H315; Eye Irrit. 2A, H319
2.5-5 %	Bis[(dimethylamino)methyl]phenol	CAS:71074-89-0	Skin Corr. 1B, H314

The actual concentration of the components listed above is withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

Most important symptoms/effects, acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

Indication of immediate medical attention and special treatment needed, if necessary

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

5. Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

In case of fire, use a dry powder fire extinguisher to extinguish.

CO2 or Dry chemical fire extinguisher.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the hazardous product

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand
Wash with plenty of water.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Storage temperature: N.A.

Always keep in a well ventilated place.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Avoid accumulating electrostatic charge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.
Safety electric system.

8. Exposure controls/personal protection

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
Toluene	OSHA				200				
	ACGIH				20				A4 - Not Classifiable as a Human Carcinogen;female reproductive; pregnancy loss;visual impairment;
	OSHA		C				300		
	EU			192	50	384	100	Indicative	Possibility of significant uptake through the skin;
Diethylene triamine	ACGIH				1				Skin - potential significant contribution to overall exposure by the cutaneous route;eye and upper respiratory tract irritation;
Bisphenol A	EU			10				Indicative	

Biological Exposure Index

CAS-No.	Component	Value	UoM	Medium	Biological Indicator	Sampling Period
108-88-3	Toluene	0,02	mg/L	Blood	Toluene	Before last turn of the working week

0,03	mg/L	Urine	Toluene	End of turn
0,3	MGGCREAT	Urine	O-Cresol	End of turn

Appropriate engineering controls

N.A.

Individual protection measures, such as personal protective equipment (PPE)

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid
Appearance and colour: amber
Odour: characteristic
Odour threshold: N.A.
pH: N.A.
Melting point / freezing point: N.A.
Initial boiling point and boiling range: >40 °C (104 °F)
Flash point: 15 °C (59 °F) Notes: CC
Evaporation rate: 0.99 % w/w
Upper/lower flammability or explosive limits: N.A.
Vapour density: >3.0
Vapour pressure: N.A.
Relative density: 0.90 g/cm3
Solubility in water: Insoluble
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Viscosity: N.A.
Explosive properties: N.A.
Oxidizing properties: N.A.
Solid/gas flammability: N.A.

Other information

Substance Groups relevant properties N.A.
Miscibility: N.A.
Fat Solubility: N.A.
Conductivity: N.A.

10. Stability and reactivity

Reactivity

It may generate dangerous reactions (See subsections below)

Chemical stability

It may generate dangerous reactions (See subsections below)

Possibility of hazardous reactions

None.

Conditions to avoid

Avoid accumulating electrostatic charge.

Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products

None.

11. Toxicological information

Information on toxicological effects

Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

Toluene	a) acute toxicity	LD50 Skin Rabbit = 8390 mg/kg
		LC50 Inhalation Rat = 125 mg/l 4h
		LD50 Oral Rat = 636 mg/kg
		LD50 Skin Rat = 12124,00000 ml/kg
		LC50 Inhalation Rat > 26700,00000 ppm 1h
2,4,6-Tri(dimethylaminomethyl) phenol	a) acute toxicity	LD50 Skin Rat = 1280 mg/kg
		LD50 Oral Rat = 1000 mg/kg
Diethylene triamine	a) acute toxicity	LD50 Skin Rabbit = 672 mg/kg
		LD50 Oral Rat = 819 mg/kg
Bisphenol A	a) acute toxicity	LD50 Skin Rabbit = 3000,00000 mg/kg
		LD50 Oral Rat = 3200 mg/kg
		LD50 Skin Rabbit = 3 ml/kg
		LC50 Inhalation Rat > 17 mg/l 6h

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

a) acute toxicity

b) skin corrosion/irritation

c) serious eye damage/irritation

d) respiratory or skin sensitisation

e) germ cell mutagenicity

f) carcinogenicity

g) reproductive toxicity

h) STOT-single exposure

i) STOT-repeated exposure

j) aspiration hazard

Substance(s) listed on the IARC Monographs:

Toluene Group 3

Substance(s) listed as OSHA Carcinogen(s):

None

Substance(s) listed as NIOSH Carcinogen(s):

None

Substance(s) listed on the NTP report on Carcinogens:

None

12. Ecological information

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
25-50 %	Toluene	CAS: 108-88-3	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 1522 mg/L 96h EPA
			a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 589 mg/L 96h EPA

			a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 11 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Oryzias latipes = 54 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 282 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 546 mg/L 48h EPA a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 433 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 125 mg/L 72h EPA
20-25 %	Diethylene triamine	CAS: 111-40-0	a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 248 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 16 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 1164 mg/L 72h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 345,60000 mg/L 96h EPA a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 592 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Leuiciscus idus = 430,00000 mg/L 96h a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 37,00000 mg/L 24h a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 16,00000 mg/L 48h
5-10 %	Bisphenol A	CAS: 80-05-7	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 3,60000 mg/L 96h EPA a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 4 mg/L 96h IUCLID a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio = 9,90000 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 10,20000 mg/L 48h IUCLID a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 2,50000 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia Magna = 3,90000 mg/L 48h

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. Disposal considerations

Safe handling and methods for disposal

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. Transport information

UN number

TDG-UN number: UN2924
ADR-UN number: 2924
DOT-UN Number: UN2924
IATA-Un number: 2924
IMDG-Un number: 2924

UN proper shipping name

TDG-Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Toluene - 2,4,6-Tri(dimethylaminomethyl)phenol)
ADR-Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Toluene - 2,4,6-Tri(dimethylaminomethyl)phenol)
DOT-Proper Shipping Name: Flammable liquids, corrosive, n.o.s. (Toluene - 2,4,6-Tri(dimethylaminomethyl)phenol)
IATA-Technical name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Toluene - 2,4,6-Tri(dimethylaminomethyl)phenol)
IMDG-Technical name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Toluene - 2,4,6-Tri(dimethylaminomethyl)phenol)

Transport hazard class(es)

TDG-Class: 3
ADR-Class: 3
DOT-Hazard Class: 3
IATA-Class: 3 (8)
IMDG-Class: 3 (8)

Packing group

TDG-Packing Group: II
ADR-Packing Group: II
DOT Packing Group: II
IATA-Packing group: II
IMDG-Packing group: II

Environmental hazards

Marine pollutant: No
Environmental Pollutant: N.A.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

N.A.

Special precautions in connection with transport or conveyance

TDG:

TDG Special provisions: 16

Department of Transportation (DOT):

DOT-Special Provision(s): IB2, T11, TP2, TP27
DOT-Label(s): 3,8
DOT-Symbol: N/A
DOT-Cargo Aircraft: N/A
DOT-Passenger Aircraft: N/A
DOT-Bulk: N/A
DOT-Non-Bulk: N/A

Road and Rail (ADR-RID):

ADR-Label: 3 + 8
ADR-Hazard identification number: 338
ADR-Transport category (Tunnel restriction code): 2 (D/E)

Air (IATA):

IATA-Passenger Aircraft: 352
IATA-Cargo Aircraft: 363
IATA-Label: 3 + 8
IATA-Subrisk: 8
IATA-Erg: 3CH
IATA-Special Provisions: A3 A803

Sea (IMDG):

IMDG-Stowage Code: Category B
IMDG-Stowage Note: Clear of living quarters.
IMDG-Subrisk: 8
IMDG-Special Provisions: 274
IMDG-Page: N/A
IMDG-Label: 3 + 8

IMDG-EMS: F-E, S-C
IMDG-MFAG: N/A

15. Regulatory information

Canada - Federal regulations

DSL - Domestic Substances List

DSL Inventory:

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL Inventory:

no substances listed

NPRI - National Pollutant Release Inventory

Substances listed in NPRI:

no substances listed

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

Toluene	is listed in TSCA	Section 8b
2,4,6-Tri(dimethylaminomethyl)phenol	is listed in TSCA	Section 8b
Diethylene triamine	is listed in TSCA	Section 8b
Bisphenol A	is listed in TSCA	Section 8b
Diethylenetriamine reaction product with bisphenol A, epichlorohydrin polymer	is listed in TSCA	Section 8b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

no substances listed

Section 304 - Hazardous substances:

Toluene

Section 313 - Toxic chemical list:

Toluene

Bisphenol A

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

Toluene	Reportable quantity:	1000	pounds

CAA - Clean Air Act

CAA listed substances:

Toluene	is listed in CAA	Section 112(b) - HAP Section 112(b) - HON
Bisphenol A	is listed in CAA	Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:

Toluene	is listed in CWA	Section 307 Section 311

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

Toluene	Listed as reproductive toxicant
Bisphenol A	Listed as reproductive toxicant

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

Toluene

Diethylene triamine

Bisphenol A

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

Toluene

Diethylene triamine

Bisphenol A

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

Toluene

Diethylene triamine

Bisphenol A

16. Other information

Code	Description
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child .
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure .
H373	May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet dated: 5/21/2019 - version 2

Product code: 2270

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

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

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

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

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 16: Other information