

Safety Data Sheet

EP GROUP 96 PLUS PART A

Safety Data Sheet dated: 3/19/2016 - version 3

Date of first edition: 5/13/2015

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: EP GROUP 96 PLUS PART A

Recommended use of the chemical and restrictions on use

Recommended use: Polyurethane-based adhesive

Restrictions on use: N.A.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive

33442 - Deerfield Beach - FL - USA

Phone: 954-246-8888

Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

2. HAZARD(S) IDENTIFICATION



Classification of the chemical

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 Chronic 3	Harmful to aquatic life with long lasting effects.

Label elements

Symbols:



Warning

Code	Description
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.
Code	Description
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241.1	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261.1	Avoid breathing mist/vapours/spray.
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+P353.1	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

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.
P363	Wash contaminated clothing 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.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

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 29 CFR 1910.1200 and related classification:

List of components

Quantity	Name	Ident. Numb.	Classification
5-10 %	Bisphenol A epoxy resin	CAS:25085-99-8	Skin Sens. 1B; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411
1-5 %	Ethylacetate	CAS:141-78-6	Flam. Liq. 2, H225; STOT SE 3, H336
1-5 %	Dipropylene glycol dibenzoate	CAS:27138-31-4	Aquatic Chronic 3, H412
0.1-1 %	Nonylphenol	CAS:25154-52-3	Repr. 2, H361; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302
0.1-1 %	Silica Sand	CAS:14808-60-7	Carc. 1A, H350.A; STOT RE 1, H372.A

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Obtain medical attention if skin related symptoms persist.
- Remove contaminated clothing immediately and dispose of safely.

In case of eyes contact:

- Wash immediately with water.

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

N.A.

Indication of any immediate medical attention and special treatment needed

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

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

- 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.

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.

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

Appropriate engineering controls: N.A.

Individual protection measures

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:

N.A.

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

12. ECOLOGICAL INFORMATION

Toxicity

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

Eco-Toxicological Information:

List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
1-5 %	Ethylacetate	CAS: 141-78-6	LC50 a) Aquatic acute toxicity Fish Pimephales promelas=220mg/L 96h EPA LC50 a) Aquatic acute toxicity Fish Oncorhynchus mykiss= 484mg/L 96h IUCLID EC50 a) Aquatic acute toxicity Daphnia Daphnia magna= 560mg/L 48h EPA
0.1-1 %	Nonylphenol	CAS: 25154-52-3	LC50 a) Aquatic acute toxicity Fish Pimephales promelas= 135mg/L 96h EC50 a) Aquatic acute toxicity Daphnia Daphnia magna= 14mg/L 48h IUCLID EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata= 41mg/L 96h IUCLID EC50 a) Aquatic acute toxicity Algae Desmodesmus subspicatus= 13mg/L 72h IUCLID
0.1-1 %	Silica Sand	CAS: 14808-60-7	LC50 a) Aquatic acute toxicity carp> 10000,00000mg/L 72h

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

14. TRANSPORT INFORMATION

UN number

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

UN proper shipping name

- 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)

- ADR-Class: 3
- DOT-Hazard Class: 3

IATA-Class: 3

IMDG-Class: 3

Packing group

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 MARPOL73/78 and the IBC Code

N.A.

Special precautions

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-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

15. REGULATORY INFORMATION

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
Nonylphenol	is listed in TSCA	Section 8b, Section 8a - PAIR
Silica Sand	is listed in TSCA	Section 8b

SARA - Superfund Amendments and Reauthorization Act

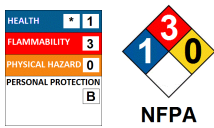
Section 302 - Extremely Hazardous Substances:

- 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.A May cause cancer if inhaled.
- 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.A Causes damage to organs through prolonged or repeated exposure if inhaled.
- H400 Very toxic 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: 3/19/2016 - version 3

Product code: 2273

Additional classification information



HMIS Health: 1 = Slight

HMIS Health - Is health hazard chronic?: Yes

HMIS Flammability: 3 = Flammable liquid

HMIS Reactivity: 0 = Minimal

HMIS P.P.E.: Safety glasses, gloves

NFPA Health: 1 = Slight

NFPA Flammability: 3 = Flammable liquid

NFPA Reactivity: 0 = Minimal

NFPA Special Risk: N.A.

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:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 4. FIRST AID MEASURES
- 6. ACCIDENTAL RELEASE MEASURES
- 7. HANDLING AND STORAGE
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION

Safety Data Sheet

EP GROUP 96 PLUS PART B

Safety Data Sheet dated: 3/19/2016 - version 2

Date of first edition: 5/13/2015

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: EP GROUP 96 PLUS PART B

Recommended use of the chemical and restrictions on use

Recommended use: Polyurethane-based adhesive

Restrictions on use: N.A.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive

33442 - Deerfield Beach - FL - USA

Phone: 954-246-8888

Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

2. HAZARD(S) IDENTIFICATION



Classification of the chemical

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.
Aquatic Acute 2	Toxic to aquatic life.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.

Label elements

Symbols:



Danger

Code	Description
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.A	May cause damage to organs through prolonged or repeated exposure if inhaled.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Code	Description
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P240	Ground/bond container and receiving equipment.
P241.1	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260.1	Do not breathe mist/vapours/spray.
P264.2	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+P353.1	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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.A	Immediately call a POISON CENTER.
P312.A	Call a POISON CENTER if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P321.A	Specific treatment (see supplementary instructions on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378.B	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.A	Dispose of contents/container in accordance with applicable regulations.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Quantity	Name	Ident. Numb.	Classification
30-40 %	Toluene	CAS:108-88-3	Flam. Liq. 2, H225; Repr. 2, H361; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 2, H401; Aquatic Chronic 3, H412
20-30 %	2,4,6-Tri(dimethylaminomethyl)phenol	CAS:90-72-2	Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412
20-30 %	Diethylene triamine	CAS:111-40-0	Skin Corr. 1B, H314; Acute Tox. 4, H312; Eye Dam. 1, H318; Skin Sens. 1B, H317; Repr. 2, H361; STOT SE 3, H335; Aquatic Chronic 3, H412; Acute Tox. 4, H302; Acute Tox. 2, H330
5-10 %	Bisphenol A	CAS:80-05-7	Repr. 2, H335; STOT SE 3, H318; Eye Dam. 1, H317; Skin Sens. 1, H317
5-10 %	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, diethylenetriamine-terminated	CAS:68610-56-0	Skin Irrit. 2, H315; Eye Irrit. 2A, H319
1-5 %	Bis[(dimethylamino)methyl]phenol	CAS:71074-89-0	Skin Corr. 1B, H314

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Obtain medical attention if skin related symptoms persist.
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 ophthalmologist 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 any immediate medical attention and special treatment needed

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

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

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

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 %

Upper/lower flammability or explosive limits: N.A.

Vapour density: >3.0

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:

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

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**Toxicity**

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

Eco-Toxicological Information:

List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
30-40 %	Toluene	CAS: 108-88-3	LC50 a) Aquatic acute toxicity Fish Pimephales promelas1522mg/L 96h EPA LC50 a) Aquatic acute toxicity Fish Oncorhynchus mykiss589mg/L 96h EPA LC50 a) Aquatic acute toxicity Fish Lepomis macrochirus11mg/L 96h EPA LC50 a) Aquatic acute toxicity Fish Oryzias latipes= 54mg/L 96h EPA LC50 a) Aquatic acute toxicity Fish Poecilia reticulata= 282mg/L 96h EPA EC50 a) Aquatic acute toxicity Daphnia Daphnia magna546mg/L 48h EPA EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata> 433mg/L 96h IUCLID EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata= 125mg/L 72h EPA
20-30 %	Diethylene triamine	CAS: 111-40-0	LC50 a) Aquatic acute toxicity Fish Poecilia reticulata= 248mg/L 96h IUCLID EC50 a) Aquatic acute toxicity Daphnia Daphnia magna= 16mg/L 48h IUCLID EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata= 1164mg/L 72h IUCLID EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata= 345,60000mg/L 96h EPA EC50 a) Aquatic acute toxicity Algae Desmodesmus subspicatus= 592mg/L 96h IUCLID LC50 a) Aquatic acute toxicity Fish Leuciscus idus= 430,00000mg/L 96h EC50 a) Aquatic acute toxicity Daphnia Daphnia magna= 37,00000mg/L 24h EC50 a) Aquatic acute toxicity Daphnia Daphnia magna= 16,00000mg/L 48h
5-10 %	Bisphenol A	CAS: 80-05-7	LC50 a) Aquatic acute toxicity Fish Pimephales promelas3,60000mg/L 96h EPA LC50 a) Aquatic acute toxicity Fish Oncorhynchus mykiss= 4mg/L 96h IUCLID LC50 a) Aquatic acute toxicity Fish Brachydanio rerio= 9,90000mg/L 96h IUCLID EC50 a) Aquatic acute toxicity Daphnia Daphnia magna= 10,20000mg/L 48h IUCLID EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata= 2,50000mg/L 96h IUCLID EC50 a) Aquatic acute toxicity Daphnia Daphnia Magna= 3,90000mg/L 48h

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

14. TRANSPORT INFORMATION**UN number**

ADR-UN number: 2924

DOT-UN Number: UN2924

IATA-Un number: 2924

IMDG-Un number: 2924

UN proper shipping name

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)

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

Packing group

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 MARPOL73/78 and the IBC Code

N.A.

Special precautions

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-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

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
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane, diethylenetriamine-terminated	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
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USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

Toluene	Listed as reproductive toxicant
Diethylene triamine	Listed as carcinogen

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

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

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 <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.
H373	May cause damage to organs through prolonged or repeated exposure .
H373.A	May cause damage to organs through prolonged or repeated exposure if inhaled.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet dated: 3/19/2016 - version 2

Product code: 2270

Additional classification information



HMIS Health: 3 = Serious

HMIS Health - Is health hazard chronic?: No

HMIS Flammability: 3 = Flammable liquid

HMIS Reactivity: 1 = Slight

HMIS P.P.E.: Safety glasses, gloves, vapor respirator

NFPA Health: 3 = Serious

NFPA Flammability: 3 = Flammable liquid

NFPA Reactivity: 1 = Slight

NFPA Special Risk: N.A.

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:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION