

**SAFETY DATA SHEET**  
According to OSHA Hazcom Standard 29 CFR 1910.1200  
**Benzene 1 µmol/mol and 6 others mix / Nitrogen**

Date of issue: 2022-08-30

Revision date: 2020-01-16

Version: 3.0

**1. IDENTIFICATION**

**A. Product name**

- Benzene 1 µmol/mol and 6 others mix / Nitrogen

**B. Recommended use and restriction on use**

- General use : Not available  
- Restriction on use : Not available

**C. Manufacturer / Supplier / Distributor information**

○ **Manufacturer information**

- Company name : RIGAS Co.,Ltd  
- Address : 46,Munpyeongseo-ro 17 beon-gil, Daedeok-gu,Daejeon, KOREA  
- Emergency telephone number : 82-42-934-6900

○ **Supplier/Distributor information**

- Company name : RIGAS Co.,Ltd  
- Address : 46,Munpyeongseo-ro 17 beon-gil, Daedeok-gu,Daejeon, KOREA  
- Emergency telephone number : 82-42-934-6900

**2. HAZARD IDENTIFICATION**

**A. GHS Classification**

- Gases under pressure : Compressed gas

**B. GHS label elements**

○ **Hazard symbols**



○ **Signal words**

- Warning

○ **Hazard statements**

- H280 Compressed gas ; Contains gas under pressure; may explode if heated

○ **Precautionary statements**

**1) Prevention**

- Not applicable

**2) Response**

- Not applicable

**3) Storage**

- P410+P403 Protect from sunlight. Store in a well-ventilated place.

**4) Disposal**

- Not applicable

**C. Other hazards which do not result in classification**

- Not available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Nitrogen	Nitrogen, Elemental ; Diazyne ; Dinitrogen ; Diatomic nitrogen ;	7727-37-9	Balance
Benzene	Benzol ; Benzole ; Bicarburet of hydrogen ; Coal naphtha ; Clohexatriene ; Phene ; Phenyl hydride ; Polystream ; Pyrobenzol ; Pyrobenzole ; Cyclohexatriene ; Benzine ; 1,3,5-Cyclohexatriene ;	71-43-2	0.0001
o-Xylene	o-Xylene ; 1,2-Dimethylbenzene ; o-Dimethyl benzene ; 1,2-Xylene ; Benzene, 1,2-dimethyl- ; XYLENE, ORTHO- ; ortho.-Xylene ; 1,2-Dimethylbenzene ; 1,2-Xylene ; 2-Methyltoluene ;	95-47-6	0.0001
Ethylbenzene	Benzene, ethyl- ; Ethyl benzene ; Ethylbenzol ; Phenylethane ;	100-41-4	0.0001
Styrene; Vinylbenzene	Ethenylbenzene ; phenylethylene ; Vinylbenzol ; Phenethylene ; Phenylethene ; Cinnamene	100-42-5	0.0001
p-Xylene	p-Xylene ; 1,4-Dimethylbenzene ; p-Xylol ; Benzene, 1,4-dimethyl- ; XYLENE, PARA- ; 1,4-DIMETHYLBENZENE ; XYLENE, P- ; .para.-Xylene ; 1,4-Xylene ; 4-Methyltoluene ;	106-42-3	0.0001
m-xylene	m-Xylene ; 1,3-Dimethylbenzene ; m-Xylol ; Benzene, 1,3-dimethyl- ; XYLENE, M- ; ; Meta-Xylene. ; 1,3-DIMETHYLBENZENE ; .meta.-Xylene ; 1,3-Xylene ; Benzene, 1,3-dimethyl ;	108-38-3	0.0001
Toluene	Methylbenzene ; Methylbenzol ; Phenyl methane ; Methacide ; Toluol ; 1-Methylbenzene	108-88-3	0.0001

#### 4. FIRST AID MEASURES

##### A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.

##### B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.

##### C. Inhalation contact

- Take specific treatment if needed.
- When exposed to large amounts of steam and mist, move to fresh air.

##### D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.

##### E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

##### F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

#### 5. FIREFIGHTING MEASURES

##### A. Suitable (Unsuitable) extinguishing media

- Avoid use of water jet for extinguishing
- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

##### B. Specific hazards arising from the chemical

- Compressed gas ; Contains gas under pressure; may explode if heated

##### C. Special protective actions for firefighters

- Avoid inhalation of materials or combustion by-products.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Keep unauthorized personnel out.

## 6. ACCIDENTAL RELEASE MEASURES

### A. Personal precautions, protective equipment and emergency procedures

- Do not touch spilled material. Stop leak if you can do it without risk.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Move container to safe area from the leak area.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.

### B. Environmental precautions

- If large amounts have been spilled, inform the relevant authorities.
- Prevent runoff and contact with waterways, drains or sewers.

### C. Methods and materials for containment and cleaning up

- Appropriate container for disposal of spilled material collected.
- Disposal of waste shall be in compliance with the Wastes Control Act
- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.

## 7. HANDLING AND STORAGE

### A. Precautions for safe handling

- Avoid contact with incompatible materials.
- Avoid direct physical contact.
- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

### B. Conditions for safe storage, including any incompatibilities

- Avoid direct sunlight.
- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### A. Exposure limits

- **ACGIH TLV**
  - [Nitrogen] : Asphyxia
  - [Benzene] : TWA, 0.5 ppm (1.6 mg/m<sup>3</sup>) STEL, 2.5 ppm (8 mg/m<sup>3</sup>)
  - [o-Xylene] : TWA 20 ppm
  - [Ethylbenzene] : TWA, 20 ppm (87 mg/m<sup>3</sup>)
  - [Styrene; Vinylbenzene] : TWA 10 ppm, STEL 20 ppm
  - [p-Xylene] : TWA 20 ppm
  - [m-xylene] : TWA 20 ppm
  - [Toluene] : TWA 20 ppm (75 mg/m<sup>3</sup>)
- **OSHA PEL**
  - [Ethylbenzene] : 435
  - [Styrene; Vinylbenzene] : 100 ppm, C 200 ppm
  - [Toluene] : 200 ppm, C 300 ppm

### B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

### C. Individual protection measures, such as personal protective equipment

- **Respiratory protection**
  - Consider warning properties before use.
  - Respiratory protection is ranked in order from minimum to maximum.
- **Eye protection**

- Provide an emergency eye wash station and quick drench shower in the immediate work area.
- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- **Hand protection**
  - Wear appropriate chemical resistant glove.
- **Skin protection**
  - Wear appropriate chemical resistant protective clothing.
- **Others**
  - Not available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	<b>C6H6</b>
- Appearance	Liquid
- Color	Colorless - yellow
B. Odor	Peculiar smell
C. Odor threshold	4.68 ppm
D. pH	Not available
E. Melting point/Freezing point	5.5 °C
F. Initial Boiling Point/Boiling Ranges	80.1 °C
G. Flash point	Not available
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	7.8 / 1.2 %
K. Vapour pressure	94.8 mmHg (25 °C)
L. Solubility	0.18 g/100ml (25 °C)
M. Vapour density	2.8 (air=1)
N. Specific gravity	0.88 (water=1)
O. Partition coefficient of n-octanol/water	2.13
P. Autoignition temperature	498 °C
Q. Decomposition temperature	Not available
R. Viscosity	0.604 cP (25 °C)
S. Molecular weight	78.11

A. Appearance	<b>Ethyl benzene</b>
- Appearance	Liquid
- Color	Colorless
B. Odor	Aromatic
C. Odor threshold	2 mg/m <sup>3</sup> (Air)
D. pH	Not available
E. Melting point/Freezing point	-95 °C
F. Initial Boiling Point/Boiling Ranges	136 °C
G. Flash point	18 °C
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	6.7 / 1 %
K. Vapour pressure	0.9 kPa (20°C)
L. Solubility	0.015 g/100ml (20 °C)
M. Vapour density	3.7
N. Specific gravity	0.9
O. Partition coefficient of n-octanol/water	3.2
P. Autoignition temperature	432 °C
Q. Decomposition temperature	Not available
R. Viscosity	0.64 cP (25°C)
S. Molecular weight	106.17

A. Appearance	<b>C7H8</b>
- Appearance	Liquid
- Color	Colorless (transparent)

B. Odor	Benzene odor
C. Odor threshold	2.14 ppm
D. pH	Not available
E. Melting point/Freezing point	-95 °C
F. Initial Boiling Point/Boiling Ranges	111 °C
G. Flash point	4 °C (c.c.)
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	7.1 / 1.1 %
K. Vapour pressure	28.4 mmHg (25°C)
L. Solubility	0.0526 g/100ml (25 °C)
M. Vapour density	3.1 (air = 1)
N. Specific gravity	0.8636
O. Partition coefficient of n-octanol/water	2.73
P. Autoignition temperature	480 °C
Q. Decomposition temperature	Not available
R. Viscosity	0.56 cP (25 °C)
S. Molecular weight	92.14

A. Appearance	<b>o-Xylene</b>
- Appearance	Etc.
- Color	Not available
B. Odor	Sweet smell
C. Odor threshold	(<1 ppm)
D. pH	Not available
E. Melting point/Freezing point	-25 °C
F. Initial Boiling Point/Boiling Ranges	144 °C
G. Flash point	32 °C
H. Evaporation rate	0.7 (butyl acetate=1)
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	6.7 / 0.9 %
K. Vapour pressure	0.7 kPa (20°C)
L. Solubility	0.0178 g/100ml (25°C)
M. Vapour density	3.7
N. Specific gravity	0.88
O. Partition coefficient of n-octanol/water	3.12
P. Autoignition temperature	463 °C
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	106.2

A. Appearance	<b>p-Xylene</b>
- Appearance	Liquid
- Color	Not available
B. Odor	Sweet smell
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	13 °C
F. Initial Boiling Point/Boiling Ranges	138 °C
G. Flash point	27 °C
H. Evaporation rate	0.7 (butyl acetate=1)
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	7 / 1.1 %
K. Vapour pressure	405.033 mmHg (20°C)
L. Solubility	0.016 g/100ml (25°C)
M. Vapour density	3.7
N. Specific gravity	0.86
O. Partition coefficient of n-octanol/water	3.15

P. Autoignition temperature	528 °C
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available
A. Appearance	<b>m-Xylene</b>
- Appearance	Not available
- Color	Not available
B. Odor	Sweet smell
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	-48 °C
F. Initial Boiling Point/Boiling Ranges	139 °C
G. Flash point	27 °C (c.c.)
H. Evaporation rate	0.7 (butyl acetate=1)
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	7 / 1.1%
K. Vapour pressure	397.533 mmHg (20 °C)
L. Solubility	0.016 g/100mℓ (25 °C)
M. Vapour density	3.7
N. Specific gravity	0.86
O. Partition coefficient of n-octanol/water	3.2
P. Autoignition temperature	527 °C
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	Not available

## 10. STABILITY AND REACTIVITY

### A. Chemical Stability

- high-pressure gas; May explode when heated.

### B. Possibility of hazardous reactions

- Contact with other combustible material may cause fire.

### C. Conditions to avoid

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.
- Avoid contact with heat, sparks, flame or other ignition sources.

### D. Incompatible materials

- Not available

### E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

## 11. TOXICOLOGICAL INFORMATION

### A. Information on the likely routes of exposure

- **Respiratory tracts**
  - Not available
- **Oral**
  - Not available
- **Eye/Skin**
  - Not available

### B. Delayed and immediate effects and also chronic effects from short and long term exposure

- **Acute toxicity**
  - \* **Oral**
    - Product (ATEmix) : Not available

- [Benzene] : LD50 >2000 mg/kg Rat (OECD TG 401)
- [o-Xylene] : rat LD50=3608 mg/kg
- [Ethylbenzene] : LD50 3500 mg/kg Rat (ECHA, HSDB)
- [Styrene; Vinylbenzene] : LD50 ca. 5000 mg/kg Rat (ECHA)
- [p-Xylene] : LD50 3523 mg/kg rat (ECHA)
- [m-xylene] : LD50 6602 mg/kg Rat (ECHA)
- [Toluene] : LD50 5580 mg/kg Rat (EU Method B.1) (ECHA)

**\* Dermal**

- Product (ATEmix) : Not available
- [Benzene] : LD50 > 8260 mg/kg Rabbit (LD50 >9400 mg/kg Guinea pig, Rabbit (OECD TG 402, ECHA)
- [o-Xylene] : LD50 14100 mg/kg rabbit
- [Ethylbenzene] : LD50 15400 mg/kg Rabbit (ECHA, ChemIDPlus)
- [Styrene; Vinylbenzene] : LD50 >2000 mg/kg Rat (OECD TG 402, GLP) (ECHA)
- [m-xylene] : 1000 mg/kg < LD50 <= 2000mg/kg
- [Toluene] : LD50 >5000 mg/kg Rabbit (ECHA)

**\* Inhalation**

- Product (ATEmix) : Not available
- [Benzene] : Vapor LC50 43.8 mg/ℓ 4 hr Rat (OECD TG 403, ECHA)
- [o-Xylene] : LC50 27.4 mg/L/4 hr Rat
- [Ethylbenzene] : Vapor LC50 17.8 mg/L 4 hr Rat (conversion value of 4000 ppm) (ECHA, HSDB)
- [Styrene; Vinylbenzene] : Vapour LC50 11.8 mg/L 4 hr Rat (ECHA)
- [p-Xylene] : LC50 19.76 mg/L/4 hr Rat (4550 ppm) (HSDB)
- [m-xylene] : 10 mg/L < LC50 <= 20 mg/L
- [Toluene] : Vapor LC50 28.1 mg/L 4 hr Rat (OECD TG 403) (ECHA)

○ **Skin corrosion/irritation**

- Not available

○ **Serious eye damage/irritation**

- Not available

○ **Respiratory sensitization**

- Not available

○ **Skin sensitization**

- Not available

○ **Carcinogenicity**

**\* IARC**

- [Benzene] : Group 1
- [Ethylbenzene] : Group 2B
- [Styrene; Vinylbenzene] : Group 2A
- [Toluene] : Group 3

**\* OSHA**

- Not available

**\* ACGIH**

- [Benzene] : A1
- [o-Xylene] : A4
- [Ethylbenzene] : A3
- [Styrene; Vinylbenzene] : A3
- [p-Xylene] : A4
- [m-xylene] : A4
- [Toluene] : A4

**\* NTP**

- [Benzene] : K
- [Styrene; Vinylbenzene] : R

**\* EU CLP**

- Not available

○ **Germ cell mutagenicity**

- Not available

○ **Reproductive toxicity**

- Not available

○ **STOT-single exposure**

- Not available
- **STOT-repeated exposure**
  - Not available
- **Aspiration hazard**
  - Not available

## 12. ECOLOGICAL INFORMATION

### A. Ecotoxicity

- **Fish**
  - [Benzene] : LC50 5.3 mg/ℓ 96 hr Rainbow Trout (NITE: EU-RAR, 2003, ECHA)
  - [o-Xylene] : LC50 16.4 mg/ℓ 96 hr
  - [Ethylbenzene] : LC50 5.1mg/ℓ 96hr Menidia menidia (GLP) (ECHA)
  - [Styrene; Vinylbenzene] : LC50 10 mg/L 96 hr Pimephales promelas (OECD TG 201, GLP) (ECHA)
  - [p-Xylene] : LC50 2.6 mg/ℓ 96 hr Other (ECHA)
  - [m-xylene] : LC50 8.4 mg/ℓ 96 hr Other (ECHA)
  - [Toluene] : LC50 5.5 mg/ℓ 96 hr Oncorhynchus kistutch (ECHA)
- **Crustaceans**
  - [Benzene] : EC50 10 mg/ℓ 48 hr Daphnia magna (EC50=20.6ppm, 48h NIER OECD TG 202, ECHA)
  - [Ethylbenzene] : EC50 1.8 ~ 2.4mg/L 48hr Daphnia magna (ECHA)
  - [Styrene; Vinylbenzene] : EC50 4.7 mg/L 48 hr Daphnia magna (OECD TG 202, GLP) (ECHA)
  - [p-Xylene] : LC50 3.6 mg/ℓ 24 hr Other (ECHA)
  - [m-xylene] : EC50 4.7 mg/ℓ 24 hr Other (ECHA)
  - [Toluene] : EC50 3.78mg/L 48hr (ECHA)
- **Algae**
  - [Benzene] : EC50 29 mg/ℓ 72 hr Selenastrum capricornutum (NITE), Selenastrum capricornutum, EC50=32 mg/L 72h, (ECHA)
  - [o-Xylene] : ErC50 0.8 mg/ℓ 72 hr Selenastrum (NITE: MOE Eco-Toxicity Tests of Chemicals (1996) and others)
  - [Ethylbenzene] : EC50 3.6 mg/ℓ 96hr, NOEC 3.4mg/L 96 h Raphidocelis subcapitata (EPA 1985, GLP) (ECHA)
  - [Styrene; Vinylbenzene] : EC50 4.9 mg/L 72 hr Raphidocelis subcapitata (EPA OTS 797.1050, GLP)
  - [p-Xylene] : EC50 4.06 mg/ℓ 72 hr Other (ECHA)
  - [m-xylene] : EC50 4.9 mg/ℓ 72 hr Other (ECHA)
  - [Toluene] : NOEC 0.74 mg/L Ceriodaphnia dubia 7d (ECHA)

### B. Persistence and degradability

- **Persistence**
  - [Nitrogen] : log Kow 0.67 (NLM/HSDB)
  - [Benzene] : log Kow 2.13 (HSDB,ChemIDplus,IPCS)
  - [o-Xylene] : log Kow 3.12 (NITE: PHYSPROP Database, 2005)
  - [Ethylbenzene] : log Kow 3.6 (20°C) (ECHA) log Kow 3.15 (HSDB)
  - [Styrene; Vinylbenzene] : log Kow 2.95 log Kow (OECD TG 107)(ECHA)
  - [p-Xylene] : log Kow 3.15 (ECHA)
  - [m-xylene] : log Kow 3.15 (ECHA)
  - [Toluene] : log Kow 2.73 (20 °C) (ECHA)
- **Degradability**
  - [Benzene] : degradable in the non-oxygen condition (NITE)
  - [o-Xylene] : BOD5/COD 0.56 (IUCLID)

### C. Bioaccumulative potential

- **Bioaccumulative potential**
  - [Benzene] : 5.88 ~ 43.2 (30fresh water, green algae, 3.5 conger, 4.3 gold fish, EPA)
  - [o-Xylene] : BCF 21.4 10 ((20°C), Anguilla japonica) (IUCLID)
  - [Ethylbenzene] : BCF 1 (ECHA)
  - [Styrene; Vinylbenzene] : BCF 74 (ECHA)
  - [m-xylene] : BCF 14.8 (HSDB)
  - [Toluene] : BCF 90 (ECHA)
- **Biodegradation**
  - [Benzene] : 50 % 28 day (degradable in the non-oxygen condition (NITE))
  - [o-Xylene] : 100 (%) 12 day ((Aerobic, Other)) (IUCLID)
  - [Ethylbenzene] : 70 ~ 80% 28day Readily biodegradable (ISO 14593 CO2 headspace test, GLP) (ECHA)



- [Styrene; Vinylbenzene] : 100 % 28 d, Readily biodegradable (ISO DIS 9408, GLP) (ECHA)
- [p-Xylene] : 90% 28 day (ECHA)
- [m-xylene] : 90 % 28 day (ECHA)
- [Toluene] : 69 % 5 day (Readily biodegradable) (ECHA)

#### D. Mobility in soil

- [Benzene] : 134.1 Koc (Estimate)
- [Styrene; Vinylbenzene] : Koc 352 (ECHA)
- [p-Xylene] : Koc 246~540 (HSDB)
- [m-xylene] : Koc 166 (HSDB)

#### E. Other adverse effects

- [Benzene] : Fish, Pimephales promelas: NOEC=0.8mg/L 32d, Crustaceans, Ceriodaphnia dubia: NOEC=3mg/L 7d, Algae, Selenastrum capricornutum. NOEC : 34mg/L 72h (ECHA)
- [Ethylbenzene] : Crustacean(Water Flea); NOEC(7d, reproduction) 0.96mg/L, Algae(Selenastrum capricornutum); NOEC(96h) 3.4mg/L (EPA 1985, GLP) (ECHA)

### 13. DISPOSAL CONSIDERATIONS

#### A. Disposal methods

- It shall be treated by incineration
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them

#### B. Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act
- Dispose of waste in accordance with all applicable laws and regulations.

### 14. TRANSPORT INFORMATION

#### A. UN No. (IMDG)

- 1956

#### B. Proper shipping name

- COMPRESSED GAS, N.O.S.

#### C. Hazard Class

- 2.2

#### D. IMDG CODE/IATA DGR Packing group

- Not applicable

#### E. Marine pollutant

- Not applicable

#### F. Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : F-C (Non-flammable gases)
- EmS SPILLAGE SCHEDULE : S-V (Gases (non-flammable, non-toxic))

### 15. REGULATORY INFORMATION

#### A. National and/or international regulatory information

##### o POPs Management Law

- [Nitrogen] : Not applicable
- [Benzene] : Not applicable
- [o-Xylene] : Not applicable
- [Ethylbenzene] : Not applicable

- [Styrene; Vinylbenzene] : Not applicable
- [p-Xylene] : Not applicable
- [m-xylene] : Not applicable
- [Toluene] : Not applicable
- **Information of EU Classification**
  - \* **Classification**
    - [Benzene] : H225,H304,H315,H319,H340,H350,H372
    - [o-Xylene] : H226,H312,H315,H332
    - [Ethylbenzene] : H225,H304,H332,H373
    - [Styrene; Vinylbenzene] : H226,H315,H319,H332,H361,H372
    - [p-Xylene] : H226,H312,H315,H332
    - [m-xylene] : H226,H312,H315,H332
    - [Toluene] : H225,H304,H315,H336,H361,H373
- **U.S. Federal regulations**
  - \* **OSHA PROCESS SAFETY (29CFR1910.119)**
    - Not applicable
  - \* **CERCLA Section 103 (40CFR302.4)**
    - [Benzene] : 4.53599 kg 10 lb
    - [o-Xylene] : 453.599 kg 1000 lb
    - [Ethylbenzene] : 453.599 kg 1000 lb
    - [Styrene; Vinylbenzene] : 453.599 kg 1000 lb
    - [p-Xylene] : 45.3599 kg 100 lb
    - [m-xylene] : 453.599 kg 1000 lb
    - [Toluene] : 453.599 kg 1000 lb
  - \* **EPCRA Section 302 (40CFR355.30)**
    - Not applicable
  - \* **EPCRA Section 304 (40CFR355.40)**
    - Not applicable
  - \* **EPCRA Section 313 (40CFR372.65)**
    - [Benzene] : Applicable
    - [o-Xylene] : Applicable
    - [Ethylbenzene] : Applicable
    - [Styrene; Vinylbenzene] : Applicable
    - [p-Xylene] : Applicable
    - [m-xylene] : Applicable
    - [Toluene] : Applicable
- **Rotterdam Convention listed ingredients**
  - Not applicable
- **Stockholm Convention listed ingredients**
  - Not applicable
- **Montreal Protocol listed ingredients**
  - Not applicable

## 16. OTHER INFORMATION

### A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

### B. Issue date

- 2022-08-30

### C. Revision number and Last date revised

- 3 times, 2020-01-16

### D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).