

Date of issue: 25/09/2013  
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## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Xylene

Product code(SDS NO): 25165jis\_J\_E1-4

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan

Division: Quality Assurance Department

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

### 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

#### PHYSICAL HAZARDS

Flammable liquids: Category 3

#### HEALTH HAZARDS

Acute toxicity Dermal: Category 4

Acute toxicity Inhalation: Category 4

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2

Carcinogenicity: Category 2

Reproductive toxicity: Category 1B

Specific target organ toxicity – single exposure: Category 1

(central nervous system, respiratory system, liver, kidney)

Specific target organ toxicity – single exposure: Narcosis Category 3

Specific target organ toxicity – repeated exposure: Category 1(respiratory system, nervous system)

Specific target organ toxicity – repeated exposure: Category 2(auditory organ)

Aspiration hazard: Category 1

#### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment – acute hazard: Category 2

Hazardous to the aquatic environment – long-term hazard: Category 2

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements



Signal word: Danger

#### HAZARD STATEMENT

Flammable liquid and vapor

Harmful in contact with skin

Harmful if inhaled

Causes skin irritation

Causes serious eye irritation

Suspected of causing cancer

May damage fertility or the unborn child

Causes damage to organs (central nervous system, respiratory system, liver, kidney) after single exposure

May cause drowsiness or dizziness

Causes damage to organs (respiratory system, nervous system) through prolonged or repeated exposure

May cause damage to organs (auditory organ) through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

#### PRECAUTIONARY STATEMENT

##### Prevention

Do not handle until all safety precautions have been read and understood.

Avoid release to the environment.

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe vapors.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves/eye protection/face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

Do not eat, drink or smoke when using this product.

##### Response

In case of fire: Use appropriate media for extinction.

Collect spillage.

Get medical advice/attention if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN: Wash with plenty of soap and water.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

##### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Store locked up.

##### Disposal

Dispose of contents/container in accordance with local/national regulation.

##### Physical and Chemical hazards

Flammable liquid. Vapor/air mixture may explode.

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### 3. Composition/information on ingredients

#### Substance/Mixture:

##### Mixture

Ingredient name: Xylene (Mixture of isomers)

Content(%): 80.0<

Chemical formula: C<sub>8</sub>H<sub>10</sub>

Chemicals No, Japan: 3-3;3-60

CAS No.: 1330-20-7

MW: 106.17

ECNO: 215-535-7

Ingredient name: Ethylbenzene

Content(%): 10~20\*<sup>1</sup>

Chemical formula: C<sub>8</sub>H<sub>10</sub>

Chemicals No, Japan: 3-28;3-60

CAS No.: 100-41-4

MW: 106.17

ECNO: 202-849-4

\* 1 : The figure shown above is not the specification of the product.

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#### 4. First-aid measures

##### Descriptions of first-aid measures

###### General measures

Get medical attention/advice if you feel unwell.

###### IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

###### IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

###### IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

###### IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

##### Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Dizziness. Drowsiness. Headache. Nausea. Burning sensation. Abdominal pain.

##### Most important symptoms/effects

Dry skin. Redness. Pain.

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#### 5. Fire-fighting measures

##### Extinguishing media

###### Suitable extinguishing media

In case of fire, use water mist, foam, dry powder, CO<sub>2</sub>.

##### Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

##### Advice for firefighters

###### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Cool container with water spray.

#### Special protective equipment and precautions for fire-fighters

Wear fire/flare resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

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### 6. Accidental release measures

#### Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area after material pick up is complete.

Wear proper protective equipment.

#### Environmental precautions

Runoff to sewer may create fire or explosion hazard.

Vapors may form explosive mixtures with air.

Avoid release to the rivers, lakes, ocean, groundwater.

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

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

#### Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent entry into waterways, sewers, basements or confined areas.

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### 7. Handling and storage

#### Precautions for safe handling

##### Preventive measures

(Exposure Control for handling personnel)

Do not breathe vapors.

(Protective measures against fire & explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

##### Exhaust/ventilator

Exhaust/ventilator should be available.

##### Safety treatments

Avoid contact with skin.

Avoid contact with eyes.

Avoid breathing dust, vapor, mist, or gas.

##### Safety Measures/Incompatibility

Do not handle until all safety precautions have been read and understood.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

Wear protective gloves and face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a well-ventilated place. Keep container tightly closed.  
Keep cool. Protect from sunlight.  
Store locked up.

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## 8. Exposure controls/personal protection

### Control parameters

#### Control value

(Ethylbenzene)

Japan control value (2012)  $\leq 20$  ppm

(Xylene (Mixture of isomers))

Japan control value (2004)  $\leq 50$  ppm

#### Adopted value

(Ethylbenzene)

JSOH(2001) 50ppm; 217mg/m<sup>3</sup>

ACGIH(2010) TWA: 20ppm

(URT irr; kidney dam; nephropathy; cochlear impair)

(Xylene (Mixture of isomers))

JSOH(2001) 50ppm; 217mg/m<sup>3</sup>

ACGIH(1992) TWA: 100ppm

STEL: 150ppm (URT & eye irr; CNS impair)

#### OSHA-PEL

(Ethylbenzene)

TWA 100ppm, 435mg/m<sup>3</sup>

(Xylene (Mixture of isomers))

TWA 100ppm, 435mg/m<sup>3</sup>

### Exposure controls

#### Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

#### Individual protection measures

##### Respiratory protection

Wear respiratory protection.

##### Hand protection

Wear protective gloves. Recommended material(s): impermeable or chemical resistant rubber

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

##### Eye protection

Wear safety glasses with side-shields or chemical safety goggle.

Wear eye/face protection.

##### Safety and Health measures

Wash ... thoroughly after handling.

Do not eat, drink or smoke when using this product.

Take off contaminated clothing and wash it before reuse.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

#### Physical properties

Appearance: Liquid

Color: Colorless

Odor: Characteristic odor

pH data N.A.

Phase change temperature

Initial Boiling Point/Boiling point: 137~140°C(Xylene (Mixture of isomers))

Melting point/Freezing point: <-25°C (Xylene (Mixture of isomers))

Decomposition temperature data N.A.

Flash point: (c.c.)25°C(Xylene (Mixture of isomers))

Auto-ignition temperature: 432°C(Ethylbenzene)

Explosive properties: Flammability or explosive limit

lower limit: 1.0 vol %(Ethylbenzene)

upper limit: 6.7 vol %(Ethylbenzene)

Vapor pressure data N.A.

Vapor density data N.A.

Specific gravity/Density: 0.860~0.870 g/ml (20°C)

Solubility

Solubility in water: Insoluble

n-Octanol /water partition coefficient data N.A.

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## 10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Flammable.

Possibility of hazardous reactions

As a result of flow, agitation, etc., electrostatic charges can be generated.

Reacts with strong acids and strong oxidants.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat. Sparks.

Incompatible materials

Strong acids, Strong oxidizing agents

Hazardous decomposition products

Carbon oxides

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## 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Ethylbenzene) rat LD50=3500 mg/kg (EHC 186, 1996)

(Xylene (Mixture of isomers)) rat LD50=3500~8800 mg/kg (NITE risk assessment, 2008)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Xylene (Mixture of isomers)) rabbit LD50=1700 mg/kg (EPA Pesticide, 2005)

Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

(Ethylbenzene) vapor : rat LC50=4000 ppm/4hr (PATTY 6th, 2012)

(Xylene (Mixture of isomers)) vapor : rat LC50=6350~6700 ppm/4hr (NITE primary risk assesment, 2008)

Labor standard law, Japan; Toxic

Xylene (Mixture of isomers)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

Xylene, JUNSEI CHEMICAL CO., LTD., 25165jis\_J\_E1-4, 14/03/2017

(Xylene (Mixture of isomers)) rabbit : erythema, edema, necrosis (NITE primary risk assesment, 2008)

Serious eye damage /irritation

[GHS Cat. Japan, base data]

(Ethylbenzene) rabbit : mild (EHC 186, 1996)

(Xylene (Mixture of isomers)) rabbit : mild to moderate (NITE primary risk assesment, 2008)

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

Carcinogenicity

[GHS Cat. Japan, base data]

(Ethylbenzene)

cat.2; IARC (2000) 2B et al

IARC-Gr.2B : Possibly carcinogenic to humans

ACGIH-A3(2010) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

JSOH-2B: Insufficient Evidence of Carcinogenicity for Humans

EPA-Group D; Not Classifiable as to Human Carcinogenicity(1986)

(Xylene (Mixture of isomers))

IARC-Gr.3 : Not Classifiable as a Human Carcinogen

ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen

EPA "Inadequate Information to Assess Carcinogenic Potencial"(2005)

Reproductive toxicity

[GHS Cat. Japan, base data]

(Xylene (Mixture of isomers)) cat.1B; ATSDR, 2007

(Ethylbenzene) cat.1B; JSOH, 2014

Delayed and immediate effects and also chronic effects from short- and long-term exposure

STOT

STOT-single exposure

[cat.1]

[Japan published data]

(Xylene (Mixture of isomers)) CNS; respiratory apparatus/system; liver; kidney ( NITE hazard assessment, 2008 )

[cat.3(resp. irrit.)]

[Japan published data]

(Ethylbenzene) Respiratory tract irritation ( EPA\_JP risk assessment, 2015 )

[cat.3(drow./dizz.)]

[Japan published data]

(Xylene (Mixture of isomers)) Narcosis ( NITE hazard assessment, 2008 )

(Ethylbenzene) Narcosis ( ATSDR, 2010 )

STOT-repeated exposure

[cat.1]

[Japan published data]

(Xylene (Mixture of isomers))

nerve/nervous system; respiratory apparatus/system ( NITE hazard assessment, 2008 )

[cat.2]

[Japan published data]

(Ethylbenzene) hearing/hearing system ( ACGIH 7th, 2011 )

Aspiration hazard

[cat.1]

[GHS Cat. Japan, base data]

(Xylene (Mixture of isomers))

cat.1; kinematic viscosity=0.86(o-), 0.67(m-), 0.70(p-) mm<sup>2</sup>/s(25°C) (HSDB, Access on December 2014)

(Ethylbenzene) cat.1; hydrocarbon, kinematic viscosity=0.738 mm<sup>2</sup>/s (25°C)

Additional data

There are no data available on the preparation itself.

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## 12. Ecological Information

### Toxicity

#### Aquatic toxicity

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

#### Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

(Xylene (Mixture of isomers))

Fish (rainbow trout) LC50=3.3mg/L/96hr (NITE risk primary assessment, 2005)

(Ethylbenzene) Crustacea (bayshrimp) LC50=0.42 mg/L/96hr (NITE primary risk assessment, 2007)

#### Aquatic chronic toxicity component(s) data

[GHS Cat. Japan, base data]

(Ethylbenzene)

Crustacea (Ceriodaphnia reticulata) NOEC = 0.956 mg/L/7 days (EPA\_JP risk assessment, 2015)

#### Water solubility

(Ethylbenzene) 0.015 g/100 ml (20°C) (ICSC, 2007)

(Xylene (Mixture of isomers)) 106 mg/L (25°C) (HSDB)

#### Persistence and degradability

(Xylene (Mixture of isomers)) Not degrade rapidly (BOD\_Degradation : 39% (NITE risk primary assessment, 2005))

(Ethylbenzene) Not degrade rapidly (BOD\_Degradation : 0% (MITI official bulletin, 1990))

#### Bioaccumulative potential

(Xylene (Mixture of isomers)) log Pow=3.16 (PHYSPROP Database, 2005)

(Ethylbenzene) log Pow=3.15 (PHYSPROP Database, 2005)

#### Additional information

There are no data available on the preparation itself.

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## 13. Disposal considerations

### Waste treatment methods

Avoid release to the environment (– if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.

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## 14. Transport Information

### UN No, UN CLASS

UN number: 1307

UN proper shipping name:XYLENES

Transport hazard class(es): 3

Packing group: III

### ERG GUIDE NO.: 130

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Noxious Liquid ; Cat. Y···Ethylbenzene; Xylene (Mixture of isomers)

Flammable Liquid···Ethylbenzene; Xylene (Mixture of isomers)

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## 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

### US major regulations

#### TSCA

Ethylbenzene; Xylene (Mixture of isomers)

### Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your



country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

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#### 16. Other information

##### GHS classification and labelling

Flam. Liq. 3: H226 Flammable liquid and vapor

Acute Tox. 4: H312 Harmful in contact with skin

Acute Tox. 4: H332 Harmful if inhaled

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2: H319 Causes serious eye irritation

Carc. 2: H351 Suspected of causing cancer

Repr. 1B: H360 May damage fertility or the unborn child

STOT SE 1: H370 Causes damage to organs (central nervous system, respiratory system, liver, kidney) after single exposure

STOT SE 3: H336 May cause drowsiness or dizziness

STOT RE 1: H372 Causes damage (respiratory system, nervous system) to organs through prolonged or repeated exposure

STOT RE 2: H373 May cause damage to organs (auditory organ) through prolonged or repeated exposure

Asp. Tox. 1: H304 May be fatal if swallowed and enters airways

Aquatic Acute 2: H401 Toxic to aquatic life

Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects

##### Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN

Classification, labelling and packaging of substances and mixtures (table 3-1 ECNO6182012)

2012 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2016 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

##### General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determine the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2015).