# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2021
Date Updated: July 26, 2021

## SECTION 1. - - - - - - - - - PRODUCT AND COMPANY IDENTIFICATION- - - - - - - - - -

| | |
|---|---|
| **Product Name** | Xylenes |
| **Product Code(s)** | XC9800 |
| **Recommended Use** | For Laboratory Research Use Only<br>Not for Human or Animal Drug Use |
| **Supplier** | Bio Basic Inc. |
| **Address** | 20 Konrad Crescent, Markham, Ontario,<br>Canada, L3R 8T4 |
| **Telephone** | (905) 474 4493 |
| **Fax** | (905) 474 5794 |
| **For Chemical Emergency Phone#** | (416) 995 9730 |

## SECTION 2. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -

### GHS Classification

Flammable liquids(Category 3)
Acute toxicity, Dermal (Category 4)
Acute toxicity, Inhalation (Category 4)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2A)
Carcinogenicity (Category 2)
Specific target organ toxicity - single exposure (Category 3),
Specific target organ toxicity - repeated exposure (Category 2)
Aspiration hazard (Category 1)
Chronic aquatic toxicity (Category 3)

### GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

| | |
|---|---|
| H226 | Flammable liquid and vapour. |
| H303 | May be harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs (Central nervous system, Liver, Kidney) through prolonged or repeated exposure if inhaled. |
| H401 | Toxic to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statement(s)

| | |
|---|---|
| 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 | Use explosion-proof electrical/ ventilating/ lighting/ equipment. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. |
| P264 | Wash skin thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ eye protection/ face protection. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. |
| P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312 | Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P331 | Do NOT induce vomiting. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/ attention. |
| P370 + P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam 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 to an approved waste disposal plant. |

**HMIS Classification**

| | |
|---|---|
| **Health hazard**: | 2 |
| **Chronic Health Hazard**: | * |
| **Flammability**: | 3 |
| **Physical hazards**: | 0 |

**Potential Health Effects**

| | |
|---|---|
| **Inhalation** | May be harmful if inhaled. Causes respiratory tract irritation. |
| **Skin** | May be harmful if absorbed through skin. Causes skin irritation. |
| **Eyes** | Causes eye irritation. |
| **Ingestion** | May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. |

## SECTION 3. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -

| Chemical Name | EC No. | CAS-No | Weight % |
|---|---|---|---|
| Xylene | 215-535-7 | 1330-20-7 | 75-100 |
| Ethylbenzene | 202-849-4 | 100-41-4 | 0-25 |

## SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - - -

**First-aid Measures**

**Inhalation**

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell.

**Skin Contact**

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. If skin irritation occurs, get medical advice or attention. Clean clothing, shoes and leather goods.

**Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice or attention.

**Ingestion**

Immediately call a Poison Centre or doctor. Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

**First-aid Comments**

Get medical advice or attention if you feel unwell or are concerned.

**Most Important Symptoms and Effects, Acute and Delayed**

Xylenes is irritating to eyes, respiratory system and skin.

**Immediate Medical Attention and Special Treatment**

**Target Organs**

Eyes, skin, respiratory system, nervous system, auditory (hearing) system.

**Special Instructions**

Treat symptomatically. Symptoms may be delayed.

**Medical Conditions Aggravated by Exposure**

None known.

## SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -

**Extinguishing Media**

**Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

**Unsuitable Extinguishing Media**

Do not use a solid water stream as it may scatter and spread fire.

**Specific Hazards Arising from the Product**

Flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. May travel a considerable distance to a source of ignition and flash back to a leak or open container. Can accumulate static charge by flow, splashing or agitation. Can be ignited by static discharge. Liquid can float on water and may travel to distant locations and/or spread fire. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire and/or health hazard. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; toxic, flammable aldehydes; irritating chemicals; toxic chemicals.

**Special Protective Equipment and Precautions for Fire-fighters**

Evacuate area. Fight fire from a protected, explosion-resistant location or maximum distance possible. Use water spray to flush spills away from ignition sources. Stop leak before attempting to put out the fire. Product could form an explosive mixture and reignite. Dike and recover contaminated water for appropriate disposal. Water may be ineffective in fighting the fire. Use water spray to keep fire-exposed containers cool. Closed containers may rupture violently when exposed to the heat of the fire. Do not allow fire protection water to enter sewer or discharge to open water.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - -

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Eliminate all ignition sources. Use grounded, explosion-proof equipment. Evacuate the area immediately. Isolate

the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Distant ignition and flashback are possible.

**Environmental Precautions**

Do not allow into any sewer, on the ground or into any waterway. Report releases to regulatory authorities if required by local, state and federal regulations.

**Methods and Materials for Containment and Cleaning Up**

Stop or reduce leak if safe to do so. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Place used absorbent into suitable, covered, labelled containers for disposal. Flush spill area. Dike and recover contaminated water for appropriate disposal. Store recovered product in suitable containers that are: tightly-covered.

**Other Information**

Report spills to local health, safety and environmental authorities, as required.

## SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - -

**Precautions for Safe Handling**

Obtain special instructions before use. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Electrically bond and ground equipment. Ground clips must contact bare metal. Do not breathe in this product. Avoid generating vapours or mists. Wash hands thoroughly after handling this material.

**Conditions for Safe Storage**

Store in an area that is: cool, dry, well-ventilated, clear of combustible and flammable materials (e.g. old rags, cardboard). Store in a closed container. Comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

**Components with workplace control parameters**

| | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|---|---|---|---|---|---|---|
| **Chemical Name** | **TWA** | **STEL** | **TWA** | **Ceiling** | **8-hr TWA** | **TWA** |
| **Xylene (mixed isomers)** | 100 ppm | 150 ppm | 100 ppm | | | |
| **Ethylbenzene** | 20 ppm | 125 ppm | | | | |

**Personal protective equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under

appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Specific engineering controls**

Use mechanical exhaust or laboratory fumehood to avoid exposure.

## SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

| | |
|---|---|
| **Appearance** | Clear colourless. |
| **Odour** | Aromatic |
| **Odour Threshold** | Not available |
| **pH** | Not applicable |
| **Melting Point/Freezing Point** | -41 - 0 ºC (-42 - 32 ºF) (melting); -42 - 32 ºF (-41 - 0 ºC) (freezing) |
| **Initial Boiling Point/Range** | 137 - 140 ºC (279 - 284 ºF) |
| **Flash Point** | 25 ºC (77 ºF) (closed cup) |
| **Evaporation Rate** | 0.76 (n-butyl acetate = 1) |
| **Flammability (solid, gas)** | Not applicable |
| **Upper/Lower Flammability or Explosive Limit** | 7% (upper); 0.9% (lower) |
| **Vapour Pressure** | 1.1 kPa (8.3 mm Hg) |
| **Vapour Density (air = 1)** | 3.66 (calculated) |
| **Relative Density (water = 1)** | 0.86 at 20 ºC |
| **Solubility** | Practically insoluble (less than 1 g/L) in water; Soluble in all proportions in alcohols (e.g. ethanol). |
| **Partition Coefficient, n-Octanol/Water (Log Kow)** | Not available |
| **Auto-ignition Temperature** | 464 ºC (867 ºF) |
| **Decomposition Temperature** | Not available |
| **Viscosity** | 0.71 - 0.92 centistokes at 20 ºC (kinematic); 0.62 - 0.81 centipoises at 20 ºC (dynamic) |

### Other Information

| | |
|---|---|
| **Physical State** | Liquid |
| **Molecular Formula** | C8H10 |
| **Molecular Weight** | 106.17 |

## SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - -

**Reactivity**

Not reactive under normal conditions of use.

**Chemical Stability**

Normally stable.

**Possibility of Hazardous Reactions**

Vapours may form explosive mixture with air.

**Conditions to Avoid**

Open flames, sparks, static discharge, heat and other ignition sources.

**Incompatible Materials**

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid).

**Hazardous Decomposition Products**

Under fire conditions carbon monoxide and carbon dioxide are produced.

## SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - -

**Likely Routes of Exposure**

Inhalation; skin contact; eye contact; ingestion.

**Acute Toxicity**

LC50 (male rat): 6350 ppm (4-hour exposure) (unspecified xylene isomers and ethylbenzene)

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

**Skin Corrosion/Irritation**

Animal tests show moderate or severe irritation.

**Serious Eye Damage/Irritation**

Animal tests show very mild irritation.

**STOT (Specific Target Organ Toxicity) - Single**

**Exposure Inhalation**

At high concentrations causes severe nose and throat irritation, depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

**Skin Absorption**

(Xylene (mixed isomers)) causes skin irritation.

**Ingestion**

If large amounts are swallowed causes damage to organs depression of the central nervous system.

**Aspiration Hazard**

May be drawn into the lungs (aspirated) if swallowed or vomited. Death can result.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

May cause effects on the central nervous system, harmful effects on the hearing (auditory) system, irritation of the respiratory system. Respiratory tract injury has been observed.

**Respiratory and/or Skin Sensitization**

Not a skin sensitizer.

**Carcinogenicity**

IARC. (Xylene (mixed isomers)) Group 3 – Not classifiable as to its carcinogenicity to humans. (Ethylbenzene) Group 2B – Possibly carcinogenic to humans.

**Reproductive Toxicity**

**Development of Offspring**

Animal studies show effects on the offspring. Known to cause: decreased weight, minor reversible effects (e.g. delayed ossification), long-lasting behavioural changes.

**Sexual Function and Fertility**

Animal studies show effects on sexual function and/or fertility.

**Effects on or via Lactation**

No information was located.

**Germ Cell Mutagenicity**

Not known to be a mutagen.

**Interactive Effects**

No information was located.

**Other Information**

The toxicological properties have not been fully investigated.

## SECTION 12. - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

**Ecotoxicity**

Xylenes: LC 50 -- Fathead minnow (Pimephales promelas), 96 h 25.62 -- 32.64 mg/l Mortalilty

Ethyl benzene: LC 50 -- Fathead minnow (Pimephales promelas), 96 h 9.1 -- 15.6 mg/l Mortality

**Persistence and Degradability**

Expected to be readily biodegradable.

**Bioaccumulative Potential**

This product and its degradation products are not expected to bioaccumulate based on the fish bioconcentration factor (BCF). 14 - 25.9.

**Mobility in Soil**

The product is insoluble in water and will spread on the water surface. If released into the environment, this product is expected to move slowly through the soil, based on physical and chemical properties.

**Other Adverse Effects**

Toxic to aquatic life.

## SECTION 13. - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - -

**Disposal Methods**

Burn in an approved incinerator according to federal, provincial/state, and local regulations. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water.

## SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - -

**Canadian TDG**

UN number: 1307 Class: 3 Packing group: III
Proper shipping name: Xylenes

**IMDG**

UN number: 1307 Class: 3 Packing group: III
Proper shipping name: XYLENES

**IATA**

UN number: 1307 Class: 3 Packing group: III
Proper shipping name: Xylenes

**Environmental Hazards** Not applicable
**Special Precaution** Not applicable
**Transport in Bulk According to Annex II of MAPOL 73/78 and the IBC Code** Not applicable

## SECTION 15. - - - - - - - - - REGULATORY INFORMATION - - - - - - - - -

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL)/ Non- Domestic Substances List (NDSL)**

All ingredients are listed on the DSL0NDSL

CEPA- National Pollutant Release Inventory (NPRI)

Part 5 (Xylene (mixed isomers)) Part 1A (Ethylbenzene)

**USA**

**Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are listed on the TSCA Inventory

## SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - - -

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**Issuing Date:** 03-Jul-2021

**End of SDS**