

This Material Safety Data Sheet contains current information regarding health, safety and disposal considerations for KPPC. To best meet your standards for safety and handling, we urge you to carefully review its contents and make it available to those who are responsible for handling and processing of the product.

This product is not for medical use whatsoever and may not be planted in a human body. KPPC shall not be liable for any death, injury, loss and/or damages that may result from such unauthorized use. KPPC shall take no liability whatsoever for any damages, losses, injury and/or death that may result from disposal and/or management of this product.

Date of issue: Mar 2010 Revision Date: Apr 2016 (Version 2.0)

1. IDENTIFICATION OF CHEMICAL/SUBSTANCE AND COMPANY/UNDERTAKING

1.1. Product identifier

Benzene

Trade name: Benzene**CAS Number:** 71-43-2**EC number:** 200-753-7**Registration number:** 01-2119447106-44-0089

1.2. Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the preparation: Monomer for the preparation of Copolymers.

1.3. Details of the supplier of the safety data sheet:

Manufacturer/Supplier:

The Kuwait Para Xylene Production Company, P.O 9717 Ahmadi-61008, Kuwait

Tel: +965 2385 1000

Email: picpxcontacts@equate.com

1.4. Emergency telephone number: +965 23254515 / 23254516 (24 hours a day)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or preparation

Hazard Pictograms



GHS02

GHS07

GHS08

Signal word (CLP): Danger

SKIN CONTACT

It may cause moderate to severe skin irritation. Don't use solvents or thinners, and seek for medical assistance directly



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INHALATION

Can be harmful in case it is inhaled. May affect nervous system. Excessive inhalation may lead to death

EYE CONTACT

It causes moderate to severe irritation

INGESTION

It may affect the central nervous system which can lead to coma or death at extreme conditions.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization

<u>INGREDIENTS</u>	<u>CAS#</u>	<u>%W/W</u>	<u>HAZARDS</u>
Benzene	71-43-2	>99.8	Hazardous
Other Hydrocarbons	-	<0.2	Hazardous

4. FIRST AID MEASURES

SKIN CONTACT

After contact with skin, wash immediately with plenty of water. Use non-abrasive soap and gently wash contaminated skin. Seek Medical attention.

INHALATION

Remove the victim to rest in well ventilated area. Avoid mouth-to-mouth resuscitation since that may risk the rescuer. Seek medical attention.

EYE CONTACT

Flush eyes with running water. Remove contact lenses, if worn. Continue flushing eyes with running water for at least 15 minutes. Seek medical attention.

INGESTION

Do not induce vomiting. Immediately seek for medical attention. If affected person conscious, provide him with water. Lose clothing to facilitate breathing.

5. FIRE-FIGHTING MEASURES

OSHA FIRE CLASSIFICATION: Flammable liquid

FLAMMABLE PROPERTIES: Flashpoint: -11°C

Autoignition: 498°C

Combustion Products: Carbon monoxide and Carbon dioxide

Low Molecular weight hydrocarbons

EXTINGUISHING MEDIA

Small fire use dry chemical powder, Co2, or water spray
large fire use water spray or fog firefighting foam

FIRE FIGHTING PROCEDURES

Isolate area around container involved in fire. Fight fire from maximum distance. Withdraw immediately in case of major fires or venting containers leaving the container to burn. Specially trained fighters required for large storage fight fires.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Firefighters should wear full protective cloths and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Protective Procedures: Eliminate all sources of ignition in the vicinity of the spill. If this material is released in to the working area, evacuate the area immediately. Consider wind direction and evacuate by crossing it. Stop the spill if safe to do so without risk. Avoid flushing into the drainage system unless the system is designed and permitted to handle such material.

7. HANDLING AND STORAGE

7.1 HANDLING

This product is for Industrial Use only

Precautions

It should be handled as flammable liquid by using fully grounded approved equipment system. Keep away from incompatible material such as strong oxidizers, halogens, nitric acid, and sulfuric acid. Keep away from source of ignition, static electricity, and friction. Do not inhale or ingest. Keep in well ventilated area.

7.2 STORAGE

Flammable material should be stored in a separate safety storage cabinet or room. Keep away from heat and sources of ignition. Store in a cool and well ventilated place. Ground all equipment containing material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Consider material hazards, applicable exposure limits, job activities and other substances in the work place when designing engineering controls and selecting personal protective equipment. If the controls are not adequate to prevent harmful exposure, the equipment listed below is recommended.

Based on Kuwait EPA the Maximum Limits Allowed for Occupational Exposure to Chemical Substances for Benzene is:

- TWA= 0.1 PPM
- STEL= 1 PPM

PERSONAL PROTECTION**Respiratory Protection**

Use vapor respirator. Make sure to use only an approved/certified respirator or equivalent.

Hand Protection / Protective Gloves

Wear gloves. Make sure to use only approved/certified chemical resistance gloves

Eye Protection

Use splash goggles. Make sure that eyewash stations and safety showers are proximal to the workstation.

Skin Protection

Use chemical resistance gloves and lab coat to prevent skin contact. Use gloves, lab coat, boots and complete facial protection.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Appearance	Colorless Clear Liquid
Boiling Point	80° C
Melting Point	5.5° C
Specific Gravity @ 20°C	0.87
Vapor Pressure	75 mmHg @ 20°C
Explosion limits	1.3% - 8%
Odor Threshold	5 ppm Max
Solubility	<u>Water</u> : Slightly soluble

10. STABILITY AND REACTIVITY

10.1 Conditions to Avoid: Sources of ignition such as flames, sparks, hot surfaces.

10.2 Materials to Avoid: Strong oxidizers, halogens, sulfuric acid and nitric acid.

10.3 Hazardous decomposition products: Carbon monoxide, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity: The oral mouse LD-50 in the rat is 4700 mg/kg.

Acute Inhalation Toxicity: The inhalation LC50 in the rat is 13050 - 14080 ppm after 4 hr exposure.

Chronic Effects on Humans: Carcinogenic as per OSHA



12. ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY

Rapidly biodegraded under aerobic conditions

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD(S)

Disposal must be in accordance with applicable federal, state, or local regulations. Residues and spilled material are hazardous waste due to ignitability.

14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situation.

DOT Classification: Class 3 : Flammable Liquid

Identification: Benzene

UN No. :UN1114

PG (Packaging Group) : II

Consult appropriate Dangerous Goods Regulations for mode specific or quantity specific requirements.

15. REGULATORY INFORMATION



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SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: Yes

CHRONIC: Yes

FIRE: Yes

REACTIVE: No

SUDDEN RELEASE: No

OSHA Hazard Communication Standard: Flammable Liquid

EC RISK AND SAFETY PHRASES:

R 11	Highly Flammable.
R 45	May cause cancer
R 46	May cause heritable genetic damage
R 36/38	Irritating to eyes and skin
R 48/23/24/25	Toxic
R 65	Harmful
S 24/25	Avoid contact with skin and eyes
S 23	Do not breathe dust.
S 53	Avoid exposure- obtain special instructions before use
S 45	Seek medical help in case of accident

16. OTHER INFORMATION

This MSDS has been compiled as guided by European Community Directive 91/155/EEC.

The product is intended for industrial use only. This MSDS and other product literature should be carefully reviewed before using the product. If necessary consult reference works or experts in fire prevention, ventilation and toxicology for proper understanding and utilization of the data in the MSDS. Enforce good housekeeping in your plant.

Specific toxicology tests have not been conducted on this product. Our toxicity evaluation is based on information from major components MSDS and professional experience.

NFPA RATINGS (SCALE 0-4):



Health : 2 Flammability : 3 Reactivity : 0

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