

	MSDS	ISSUE DATE	June-2020
	ETHYLBENZENE	WWW.TPCO.IR	
		IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL:+984134282612 Page:1/6	

1. Chemical Product And Company Identification:

Substance: Ethyl Benzene

Synonyms: EBZ; Phenylethene; Ethyl benzene; Alpha Methyl toluene.

Chemical Family: Hydrocarbons, Aromatic

Company Identification: Tabriz petrochemical company

2. Composition, Information On Ingredients:

Component: ethyl benzene

CAS NO.: 100-41-4

Percentage: 100

3. Hazards Identification:

NFPA Ratings (Scale 0-4): Health=3 Fire=3 Reactivity=0

Emergency overview:

Color: colorless

Physical form: liquid

Odor: aromatic odor

Major health hazards: respiratory tract irritation, skin irritation, eye irritation, aspiration hazard, central nervous system depression, suspect cancer hazard (in animals)

Physical hazards: flammable liquid and vapor. Vapor may cause flash fire.

Potential health effects:

Inhalation:

Short term exposure: irritation (possibly severe), chest pain, difficulty breathing, headache, drowsiness, dizziness, loss of coordination, coma

Long term exposure: irritation, headache, drowsiness, emotional disturbances, cancer

Skin contact:

Short term exposure: irritation (possibly severe)

Long term exposure: irritation

Eye contact:

Short term exposure: irritation (possibly severe)

Long term exposure: irritation

Ingestion:

Short term exposure: nausea, vomiting, stomach pain, aspiration hazard

Long term exposure: no information on significant adverse effects

	MSDS	ISSUE DATE	June-2020
	ETHYLBENZENE	WWW.TPCO.IR	
		IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL:+984134282612 Page:2/6	

4. First Aid Measures:

Inhalation: if adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin contact: wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Thoroughly clean and dry contaminated clothing before reuse. Destroy contaminated shoes.

Eye contact: flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion: contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

Note to physician: for inhalation, consider oxygen. For ingestion, consider gastric lavage and activated charcoal slurry.

5. Fire Fighting Measures:

Fire and explosion hazards: severe fire hazard. Vapor/air mixtures are explosive above flash point. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

Extinguishing media: regular dry chemical, carbon dioxide, water, regular foam

Large fires: use regular foam or flood with fine water spray.

Fire fighting: move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

For tank, rail car or tank truck: evacuation radius: 800 meters (1/2 mile).water may be ineffective.

	MSDS	ISSUE DATE	June-2020
	ETHYLBENZENE	WWW.TPCO.IR IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL:+984134282612 Page:3/6	

Flash point: 59 f (15 c) (cc)
 Lower flammable limit: 0.8%
 Upper flammable limit: 6.7%
 Auto ignition: 810 f (432 c)
 Flammability class (OSHA): IB

6. Accidental Release Measures:

Air release:

Reduce vapors with water spray. Stay upwind and keep out of low areas.

Soil release:

Dig holding area such as lagoon, pond or pit for containment. Absorb with sand or other non-combustible material.

Water release:

Cover with absorbent sheets, spill-control pads or pillows. Neutralize. Collect with absorbent into suitable container. Absorb with activated carbon. Remove trapped material with suction hoses. Collect spilled material using mechanical equipment.

Occupational release:

Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: absorb with sand or other non-combustible material. Collect spilled

7. Handling And Storage:

Storage: store and handle in accordance with all current regulations and standards. Protect from physical damage. Store outside or in a detached building.

8. Exposure Controls, Personal Protection:

Exposure limits:

50 ppm (435 mg/m³) OSHA TWA

50 ppm ACGIH TWA

100 ppm (435 mg/m³) NIOSH TWA.

Ventilation: ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

	MSDS	ISSUE DATE	June-2020
	ETHYLBENZENE	WWW.TPCO.IR IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL:+984134282612 Page:4/6	

Eye protection: wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Clothing: wear appropriate chemical resistant clothing.

Gloves: wear appropriate chemical resistant gloves.

Respirator: the following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.800 ppm

Any air-purifying half-mask respirator equipped with organic vapor cartridge(s).

Any air purifying full-face piece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.

Any powered, air purifying respirator with organic vapor cartridge(s). Any supplied air respirator. Any self contained breathing apparatus with a full face piece. Any self contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.

Any supplied-air respirator with a full face piece that is operated in a pressure-demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure demand or other positive-pressure mode.

Escape:

Any air purifying full face piece respirator (gas mask) with a chin style, front mounted or back-mounted organic vapor canister. Any appropriate escape type, self contained breathing apparatus.

for unknown concentrations or immediately dangerous to life or health any supplied-air respirator with a full face piece that is operated in a pressure-demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure demand or other positive-pressure mode.

Any self contained breathing apparatus that has a full face piece and is operated in a pressure demand or other positive-pressure mode.

9. Physical And Chemical Properties:

Physical state: liquid

Color: colorless

Odor: aromatic odor

Molecular weight: 106.17

Molecular formula: c-h3-c-h2-c6-h5

Boiling point: 277 f (136 c)

Freezing point: -139 f (-95 c)

Vapor pressure: 7.1 mmhg @ 20 c

Vapor density (air=1): 3.66

Specific gravity (water=1): 0.8670

Water solubility: 0.015%

PH: not available

	MSDS	ISSUE DATE	June-2020
	ETHYLBENZENE	WWW.TPCO.IR IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL:+984134282612 Page:5/6	

Volatility: 100%

Odor threshold: 140 ppm

Evaporation rate: <1 (butyl acetate=1)

Viscosity: 0.64 cp @ 25 c

Coefficient of water/oil distribution: not available

Solvent solubility:

Soluble: alcohol, ether, benzene, sulfur dioxide, carbon tetrachloride

Insoluble: ammonia

10. Stability And Reactivity:

Reactivity: stable at normal temperatures and pressure.

Conditions to avoid: avoid heat, flames, sparks and other sources of ignition.

Containers may

Rupture or explode if exposed to heat. Keep out of water supplies and sewers.

Incompatibilities: acids, bases, oxidizing materials, combustible materials.

Hazardous decomposition:

Thermal decomposition products: oxides of carbon

Polymerization: will not polymerize.

11. Toxicological Information:

Irritation data: 15 mg/24 hour(s) open skin-rabbit mild; 500 mg eyes-rabbit severe

Toxicity data: 55000 mg/m³/2 hour(s) inhalation-rat lc₅₀; >5000 mg/kg skin-rabbit ld₅₀; 3500

Mg/kg oral-rat ld₅₀

Irritant: inhalation, skin, eye

Acute toxicity level:

Moderately toxic: ingestion

Slightly toxic: inhalation, dermal absorption

Target organs: central nervous system

Medical conditions aggravated by exposure: kidney disorders, liver disorders,

Respiratory disorders, skin disorders and allergies

Tumorigenic data: available.

Mutagenic data: available.

Reproductive effects data: available.

Additional data: may cross the placenta.

	MSDS	ISSUE DATE	June-2020
	ETHYLBENZENE	WWW.TPCO.IR IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL:+984134282612 Page:6/6	

12. Ecological Information:

Fate and transport:

Henry's law constant: 6.6×10^{-3} atm-m³/mol

Bioconcentration: 36.39 (estimated from water solubility)

aquatic processes: 2.6730095 hours (river model: 1 m deep, 1 m/s flow, 3 m/s wind)

Environmental summary: relatively non-persistent in the environment. Not expected to leach through the soil or the sediment.

13. Disposal Considerations:

Dispose in accordance with all applicable regulations.

14. Transport Information:

According to local regulation with reference to NFPA rating

15. Regulatory Information:

ACUTE: Yes

CHRONIC: Yes

FIRE: Yes

REACTIVE: No

SUDDEN RELEASE: No

16. Other Information:

Although the information contained in this document is presented in good faith, base on available information believed to be reliable at the time of preparation of this document, TPC makes no warranties or representations with respect to the information or the products described herein, and expressly disclaims all implied warranties and conditions (including all warranties and conditions of merchantability or fitness for a particular purpose).this information is subject to change without notice. Responsibility for use, storage, handling and disposal of the products described herein, whether alone or in combination with any other substance, is that of the purchaser and/or end user.