

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 01 Aug 2024

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product name:

D10-Ethylbenzene

### 1.1. Catalog No.:

691625

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
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contact@hpc-standards.com

### 1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

## 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture  
Regulation (EC) No 1272/2008  
Aspiration hazard Category 1 - (H304)  
Acute toxicity - Inhalation (Vapours) Category 4 - (H332)  
Carcinogenicity Category 2 - (H351)  
Specific target organ toxicity -- repeated exposure Category 2 - (H373)

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

Signal word- Danger  
Hazard statements  
H304 - May be fatal if swallowed and enters airways

H332 - Harmful if inhaled  
H351 - Suspected of causing cancer  
H373 - May cause damage to organs through prolonged or repeated exposure  
H225 - Highly flammable liquid and vapour  
Precautionary Statements - EU (§28, 1272/2008)  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P370 + P378 - In case of fire: Use dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam to extinguish  
P403 + P235 - Store in a well-ventilated place. Keep cool

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ethylbenzene

#### 3.1.1. Formula

C<sub>8</sub>H<sub>10</sub>

#### 3.1.2. Molecular Weight (g/mol)

116.23

#### 3.1.3. CAS-No.

25837-05-2

### 4. FIRST AID MEASURES

4.1. Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention. Immediate medical attention is required.

#### Inhalation

If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Aspiration into lungs can produce severe lung damage. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.

#### Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

#### Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

#### Ingestion

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.

#### Self-protection of the first aider

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid breathing vapours or mists. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

##### Symptoms

Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

#### 4.3. Indication of any immediate medical attention and special treatment needed

##### Note to doctors

Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.

## 5. FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray. Alcohol resistant foam.

Large Fire: CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media: Do not scatter spilled material with high pressure water streams.

#### 5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing

## 6. ACCIDENTAL RELEASE MEASURES

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

##### Personal precautions

Avoid breathing vapours or mists. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. See section 8 for more information.

Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources

(no smoking, flares, sparks or flames in immediate area).

Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

#### Other information

Refer to protective measures listed in Sections 7 and 8. Ventilate the area.

For emergency responders Use personal protection recommended in Section 8.

#### 6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

#### 6.3. Methods and material for containment and cleaning up

##### Methods for containment

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

##### Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.4. Reference to other sections

See section 8 for more information. See section 13 for more information

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Avoid breathing vapours or mists. Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Avoid contact with skin, eyes or clothing.

#### General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

#### Storage Conditions

Please refer to the manufacturers certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Store away from other materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Exposure Limits in European Union

TWA: 100 ppm

TWA: 442 mg/m<sup>3</sup>

STEL: 200 ppm

STEL: 884 mg/m<sup>3</sup>

Derived No Effect Level (DNEL): No information available.  
Predicted No Effect Concentration: No information available.  
(PNEC)

## 8.2. Exposure controls

### Personal protective equipment

Eye/face protection: Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

Hand protection: Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective nitrile rubber or Viton(TM) gloves.

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations: Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls: Do not allow into any sewer, on the ground or into any body of water.

## 8.2. Begrenzung und Überwachung der Exposition

### Persönliche Schutzausrüstung

#### Augen-/Gesichtsschutz

Berührung mit den Augen vermeiden. Schutzbrille mit Seitenschild (oder Schutzbrille) tragen. Dichtschließende Schutzbrille.

#### Handschutz

Geeignete Schutzhandschuhe tragen. Undurchlässige Handschuhe. Die einzusetzenden Schutzhandschuhe müssen den Spezifikationen der EG-Richtlinie 89/686/EWG und der sich daraus ergebenden Norm EN374 genügen. Schutzhandschuhe aus Nitril oder Viton(TM) tragen.

#### Haut- und Körperschutz

Bei der Arbeit geeignete Schutzkleidung tragen. Langarmige Kleidung. Chemikalienbeständiger Anzug. Antistatische Stiefel.

#### Atemschutz

Bei normalen Verwendungsbedingungen ist keine Schutzausrüstung erforderlich. Bei Überschreitung der Expositionsgrenzen oder bei auftretender Reizung kann Belüftung und Evakuierung erforderlich sein.

#### Allgemeine Hygienevorschriften

Berührung mit Haut, Augen und Kleidung vermeiden. Bei Gebrauch nicht essen, trinken oder rauchen. Vor Pausen und nach der Arbeit die Hände waschen. Bei der Arbeit geeignete Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen. Kontaminierte Arbeitskleidung nicht außerhalb des Arbeitsplatzes tragen. Regelmäßiges Reinigen der Ausrüstung, des Arbeitsbereichs und der Kleidung wird empfohlen. Hände vor Pausen und unmittelbar nach dem Umgang mit dem Produkt waschen.

#### Begrenzung und Überwachung der Umweltexposition

Dieser Stoff darf nicht in der Kanalisation, im Erdreich oder in Gewässern entsorgt werden.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state Liquid

Appearance Liquid

Colour colourless

Odour Aromatic.

Odour threshold No information available

Melting point / freezing point -95 °C

Initial boiling point and boiling range 136 °C

Flammability No data available

Flammability Limit in Air

Upper flammability or explosive limits

7.8 %vol ; 340 g/m<sup>3</sup>

Lower flammability or explosive limits

1.5 vol ; 43 g/m<sup>3</sup>

Flash point -21 °C

Autoignition temperature 430 °C

Decomposition temperature  
pH- No data available  
pH (as aqueous solution)- No data available  
Kinematic viscosity- No data available  
Dynamic viscosity- No data available  
Water solubility- 0.17 g/l @ 25 °C  
Solubility(ies)- No data available  
Partition coefficient- 3.15  
Vapour pressure- 9.79 hPa @ 20°C  
Relative density- 0.87 @ 20 °C  
Bulk density- No data available  
Liquid Density- No data available  
Relative vapour density- 3.66  
Particle characteristics  
Particle Size- No information available  
Particle Size Distribution- No information available

#### 9.2. Other information

Molecular weight 106.17

Molecular formula C8 H10

9.2.1. Information with regards to physical hazard classes- Not applicable

9.2.2. Other safety characteristics - No information available

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity- No information available.

### 10.2. Chemical stability

Stability- Stable under normal conditions.

### Explosion data

Sensitivity to mechanical impact- None.

Sensitivity to static discharge- Yes.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reaction-s None under normal processing.

### 10.4. Conditions to avoid

Conditions to avoid- Excessive heat. Heat, flames and sparks.

### 10.5. Incompatible materials

Incompatible materials- None known based on information supplied.

Hazardous decomposition products- None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

#### Product Information

Inhalation- Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components).

Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal.

Eye contact- Specific test data for the substance or mixture is not available.

Skin contact- Specific test data for the substance or mixture is not available.

Ingestion- Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing. Difficulty in breathing. Dizziness.

Numerical measures of toxicity

Acute toxicity

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylbenzene	= 3500 mg/kg ( Rat )	=15400 mg/kg ( Rabbit )	=17.4 mg/L ( Rat ) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Skin corrosion/irritation- Based on available data, the classification criteria are not met.  
Serious eye damage/eye irritation- No information available.

Respiratory or skin sensitisation No information available.  
Germ cell mutagenicity- No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
Ethylbenzene	Muta. 1B

Carcinogenicity- Suspected of causing cancer. Contains a known or suspected carcinogen. Classification based on data available for ingredients.

The table below indicates whether each agency has listed any ingredient as a carcinogen.  
Reproductive toxicity- No information available.  
STOT - single exposure- No information available.  
STOT - repeated exposure- May cause damage to organs through prolonged or repeated exposure.  
H373 - May cause damage to the following organs through prolonged or repeated exposure: Hearing organs.  
Aspiration hazard- May be fatal if swallowed and enters airways.

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Endocrine disrupting properties- No information available.

#### 11.2.2. Other information

Other adverse effects- No information available.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity- Toxic to aquatic life.

#### Algae/aquatic plants

EC50: 1.7 - 7.6mg/L (96h, Pseudokirchneriella subcapitata)  
EC50: 2.6 - 11.3mg/L (72h, Pseudokirchneriella subcapitata)  
EC50: =11mg/L (72h, Pseudokirchneriella subcapitata)  
EC50: =4.6mg/L (72h, Pseudokirchneriella subcapitata)  
EC50: >438mg/L (96h, Pseudokirchneriella subcapitata)

#### Fish

LC50: 11.0 - 18.0mg/L (96h, Oncorhynchus mykiss)  
LC50: 7.55 - 11mg/L (96h, Pimephales promelas)  
LC50: 9.1 - 15.6mg/L (96h, Pimephales promelas)  
LC50: =32mg/L (96h, Lepomis macrochirus)  
LC50: =4.2mg/L (96h, Oncorhynchus mykiss)  
LC50: =9.6mg/L (96h, Poecilia reticulata)

#### Crustacea

EC50: 1.8 - 2.4mg/L (48h, Daphnia magna)

### 12.2. Persistence and degradability

Persistence and degradability- No information available.

### 12.3. Bioaccumulative potential

Bioaccumulation- There is no data for this product.

### 12.4. Component Information

#### Ethylbenzene

Partition coefficient: 3.15

### 12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

### 12.7. Other adverse effects

No information available.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

Waste from residues/unused products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

#### Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

### 14. TRANSPORT INFORMATION

#### IATA

14.1 UN number or ID number UN1175

14.2 UN proper shipping name Ethylbenzene

14.3 Transport hazard class(es) 3

14.4 Packing group II

Description UN1175, Ethylbenzene, 3, II

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

ERG Code 3L

#### IMDG

14.1 UN number or ID number UN1175

14.2 UN proper shipping name Ethylbenzene

14.3 Transport hazard class(es) 3

14.4 Packing group II

Description UN1175, Ethylbenzene, 3, II, (21°C c.c.)

14.5 Marine pollutant NP

14.6 Special precautions for user

Special Provisions None

EmS-No F-E, S-D No information available

14.7 Maritime transport in bulk

according to IMO instruments

No information available

#### RID

14.1 UN number or ID number UN1175

14.2 UN proper shipping name Ethylbenzene

14.3 Transport hazard class(es) 3

14.4 Packing group II

Description UN1175, Ethylbenzene, 3, II

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

Classification code F1

#### ADR

14.1 UN number or ID number UN1175

14.2 UN proper shipping name Ethylbenzene

14.3 Transport hazard class(es) 3

14.4 Packing group II

Description UN1175, Ethylbenzene, 3, II, (D/E)

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

Classification code F1

Tunnel restriction code (D/E)

## 15. REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA Complies

## 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!