



Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date: 28.11.2024

Version number 1

Revision: 28.11.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: BETEK ROAD MARKING PAINT THINNER**
- **Article number: 5112-EN-01**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Betek Boya ve Kimya Sanayi A.Ş.
Gebze Organize Sanayi Bölgesi
Tembelova Alanı 3200. Sokak No:3206
Tel: 0 (262) 678 30 00
Gulay.Artiran@betek.com.tr
- **Further information obtainable from: R&D department**
- **1.4 Emergency telephone number: 0090 262 678 30 00**

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**

GHS02 GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***toluene*· **Hazard statements***H225 Highly flammable liquid and vapour.**H315 Causes skin irritation.**H361d Suspected of damaging the unborn child.**H336 May cause drowsiness or dizziness.**H373 May cause damage to organs through prolonged or repeated exposure.**H304 May be fatal if swallowed and enters airways.*· **Precautionary statements***P101 If medical advice is needed, have product container or label at hand.**P102 Keep out of reach of children.**P103 Read carefully and follow all instructions.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P321 Specific treatment (see on this label).**P331 Do NOT induce vomiting.**P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**P362+P364 Take off contaminated clothing and wash it before reuse.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**· **Description:**· **Dangerous components:**

CAS: 108-88-3	toluene	50-100%
EINECS: 203-625-9	Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**· **General information:***Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

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- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

108-88-3 toluene

OEL	Short-term value: 384 mg/m ³ , 100 ppm
	Long-term value: 192 mg/m ³ , 50 ppm
	Skin, IOELV

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· **General Information**

· **Colour:**

Colourless

· **Odour:**

Aromatic

· **Odour threshold:**

Not determined.

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· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	110 °C (108-88-3 toluene)
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	1.2 Vol %
· Upper:	7.0 Vol %
· Flash point:	4 °C
· Auto-ignition temperature:	535 °C
· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Not determined.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	29 hPa
· Density and/or relative density	
· Density at 20 °C:	0.87 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· **9.2 Other information**

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Change in condition	
· Evaporation rate	Not determined.

· **Information with regard to physical hazard classes**

· Explosives	void
· Flammable gases	void
· Aerosols	void
· Oxidising gases	void
· Gases under pressure	void
· Flammable liquids	Highly flammable liquid and vapour.
· Flammable solids	void
· Self-reactive substances and mixtures	void
· Pyrophoric liquids	void
· Pyrophoric solids	void
· Self-heating substances and mixtures	void
· Substances and mixtures, which emit flammable gases in contact with water	void
· Oxidising liquids	void
· Oxidising solids	void
· Organic peroxides	void
· Corrosive to metals	void
· Desensitised explosives	void

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SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**
Suspected of damaging the unborn child.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.

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- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|--|
| · 14.1 UN number or ID number
· ADR, IMDG, IATA | UN1993 |
| · 14.2 UN proper shipping name
· ADR
· IMDG, IATA | 1294 TOLUENE mixture
1993 ÇAİĀĒĒĪĀ ÒĀ×ĪĪÑÒ, Í.Ó.Ê. (ÒĪĒÓĪĒ), Ñĩăöèàèèè
ðàçĩđđăăèè 640D |
| · 14.3 Transport hazard class(es)
· ADR
<div style="text-align: center;">  </div> · Class
· Label | 3 (F1) Flammable liquids.
3 |
| · IMDG, IATA
<div style="text-align: center;">  </div> · Class
· Label | 3 Flammable liquids.
3 |
| · 14.4 Packing group
· ADR, IMDG, IATA | II |
| · 14.5 Environmental hazards:
· Marine pollutant: | No |
| · 14.6 Special precautions for user
· Hazard identification number (Kemler code):
· EMS Number: | Warning: Flammable liquids.
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F-E,S-D |

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|---|--|--|
| · 14.7 Maritime transport in bulk according to IMO instruments | | Not applicable. |
| · Transport/Additional information: | | |
| · ADR | | |
| · Limited quantities (LQ) | | 1L |
| · Excepted quantities (EQ) | | Code: E2 |
| | | Maximum net quantity per inner packaging: 30 ml |
| | | Maximum net quantity per outer packaging: 500 ml |
| · Transport category | | 2 |
| · Tunnel restriction code | | D/E |
| · IMDG | | |
| · Limited quantities (LQ) | | 1L |
| · Excepted quantities (EQ) | | Code: E2 |
| | | Maximum net quantity per inner packaging: 30 ml |
| | | Maximum net quantity per outer packaging: 500 ml |
| · UN "Model Regulation": | | UN 1294 TOLUENE MIXTURE, 3, II |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 48
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
- None of the ingredients is listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
- None of the ingredients is listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
- None of the ingredients is listed.
- **Regulation (EC) No 273/2004 on drug precursors**

108-88-3	toluene	3
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- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

108-88-3	toluene	3
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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· Relevant phrases

- H225 *Highly flammable liquid and vapour.*
 H304 *May be fatal if swallowed and enters airways.*
 H315 *Causes skin irritation.*
 H336 *May cause drowsiness or dizziness.*
 H361d *Suspected of damaging the unborn child.*
 H373 *May cause damage to organs through prolonged or repeated exposure.*

· Abbreviations and acronyms:

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organisation
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 2: Flammable liquids – Category 2
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 Asp. Tox. 1: Aspiration hazard – Category 1

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