



SAFETY DATA SHEET

Toluene

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Toluene
Chemical Name Toluene

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

Identified uses Industrial solvent.

1.3. Details of the supplier of the safety data sheet

Supplier: SHL Manufacturing Limited
Unit 1B Old Street
Wimborne
BH21 4DB

info@shluk.biz

1.4. Emergency telephone number

01258 858130

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical	Flam. Liq. 2 - H225
Health	Skin Irrit. 2 - H315; Repr. 2 - H361d; STOT Single 3 - H336; STOT Rep. 2 - H373; Asp. Tox. 1 - H304
Environmental	Not classified.

Classification (1999/45)

Xn; R48/20, R65. Repr. Cat. 3; R63. Xi; R38. F; R11. R67.

2.2. Label elements

Contains: TOLUENE

Label In Accordance With (Ec) No. 1272/2008



Signal Word

Danger

Hazard Statements

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.

Toluene

Precautionary Statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P370+378A	In case of fire: Use foam, carbon dioxide, dry powder or other inert material for extinction. Do not use high pressure water jet as this may spread burning material.
P301+310+331	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting.
P403+233+235	Store in a well-ventilated place, in original container. Keep container tightly closed, Keep cool.
P501D	Empty containers may contain residual product and vapours. Do not cut or weld on or near empty containers. Disposal should only be by means of a licensed waste disposal contractor.

Supplementary Precautionary Statements

P260e	Do not breathe vapours.
P240+P241+P243	Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/pumping equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
P303+P361+P353	If ON SKIN: Remove/Take off immediately all contaminated clothing. Gently wash with soap and water.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

TOLUENE	>98%
CAS-No.: 108-88-3	EC No.: 203-625-9
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361d STOT Single 3 - H336 STOT Rep. 2 - H373 Asp. Tox. 1 - H304	Classification (67/548) F;R11 Repr.Cat.3;R63 Xn;R48/20,R65 Xi;R38 R67

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation.

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Get medical attention immediately! Provide rest, warmth and fresh air.

Skin Contact

Remove affected person from source of contamination. Remove contaminated clothing and shoes. Wash skin thoroughly with soap and running water. Take especial care to clean folds, crevices, creases and groin.

Get medical attention if irritation persists or develops.

Launder clothing and clean shoes thoroughly before re-use. Get medical attention if irritation persists after washing.

Eye Contact

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Remove victim immediately from source of exposure. Promptly rinse eyes with plenty of clean water while lifting the eyelids. Continue to rinse for at least 15 minutes. Continue until the eyes are free of all traces of contamination.

Get immediate medical attention. Continue to rinse.

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

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

Toluene

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

Use: Water spray, fog or mist. Carbon dioxide (CO₂). Dry chemicals. Alcohol resistant foam. Do not use high pressure water jet as this may spread burning material.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

In fire conditions toxic fumes and gases are given off, including Carbon dioxide (CO₂). Carbon monoxide (CO). Application of a stream of water may cause violent steam generation or eruption. Vapours are heavier than air and may spread near ground to sources of ignition.

Specific Hazards

Fire emits clouds of smoke which may contain toxic vapours, gases and fumes.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Water spray should be used to cool containers. Beware, risk of formation of toxic and corrosive gases.

Protective Measures In Fire

Keep all unnecessary people away. Use air-supplied respirator, gloves and protective goggles. Fire water run-off must not be allowed to contaminate ground or enter drains, sewers or water courses. Provide bunding against fire water run-off.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Keep unnecessary people at a safe distance. Ventilate to dispel residual vapour. Clean-up personnel should use respiratory protection, gloves, goggles and protective clothing and footwear. (see section 8)

6.2. Environmental precautions

Cover all drains and sewers. Avoid spreading spilt material. Contain spillages with sand, earth or any suitable adsorbent material.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers. Do not contaminate water sources or sewer.

6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not eat, drink or smoke when using the product. Prevent liquid entering sewers, basements and work pits.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in tightly closed original container in a dry, cool and well-ventilated place. Protect from light, including direct sunrays.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
TOLUENE		50 ppm(Sk)	191 mg/m3(Sk)	100 ppm(Sk)	384 mg/m3(Sk)	Sk

Sk = Can be absorbed through skin.

8.2. Exposure controls

Engineering Measures

Provide adequate general and local exhaust ventilation.

Toluene

Respiratory Equipment

If ventilation is insufficient, suitable respiratory protection must be provided. If ventilation is insufficient suitable respiratory protection must be provided.

Seek recommendations and advice from equipment manufacturer or supplier.

Hand Protection

Use protective gloves. Viton rubber (fluor rubber). Neoprene.

Eye Protection

Wear approved safety goggles.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet.

Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Colourless liquid
Odour	Aromatic. Sweetish
Solubility	Slightly soluble in water. Soluble in most organic solvents.
Initial Boiling Point and Boiling Range:	111°C 760 mm Hg
Melting Point (°C)	-93°C
Relative Density	0.867
Vapour Density (Air=1)	3.2
Vapour Pressure	28.4 mm Hg 25°C
Evaporation Rate	2.4 (nBuAc = 1)
Viscosity	0.59 cps 20°C
Flash Point (°C)	4°C CC (Closed cup).
Auto Ignition Temperature (°C)	480
Flammability Limit - Lower(%)	1.1
Flammability Limit - Upper(%)	7.1
Partition Coefficient (N-Octanol/Water)	+2.65

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

Stable under normal conditions of storage and use. See section 7. Decomposition will normally occur only in fire conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not occur under normal conditions.

10.4. Conditions to avoid

Avoid contact with acids and oxidising substances. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials To Avoid

Alkali metals. Finely powdered aluminium. Calcium Oxidising agents, acids and bases.

10.6. Hazardous decomposition products

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toluene

Toxic Dose 1 - Ld 50	636 mg/kg (oral rat)
Toxic Dose 2 - Ld 50	14100 mg/kg (dermal-rbt)
Toxic Conc. - LC 50	30000 mg/m ³ /2hrs (inh-mouse)

Inhalation

May cause irritation to the respiratory system. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Ingestion.

Harmful if swallowed. Aspiration hazard if swallowed; harmful if liquid is aspirated into the lungs, may even prove fatal. Accidental swallowing of small quantities is unlikely to cause harm but larger amounts may cause nausea and diarrhoea.

Skin Contact

Repeated exposure may cause skin dryness or cracking.

Eye Contact

Irritating to eyes.

Target Organs

Skin Eyes Respiratory system, lungs

Medical Symptoms

Can cause central nervous effects and irregular pulse. Can cause systemic effects.

Specific Effects

Contains a substance/a group of substances which may cause harm to the unborn child.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Accidental spillage of small quantities are not expected to adversely affect the environment.

12.1. Toxicity

12.2. Persistence and degradability

Degradability:

The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Partition Coefficient	Partition coefficient (n-octanol/water): +2.65
-----------------------	---

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

General Information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not dispose to landfill or in water courses. Empty containers may contain residual flammable vapours and product residue. Keep away from sparks, heat and sources of ignition. Labels should not be removed.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1294
UN No. (IMDG)	1294
UN No. (ICAO)	1294

14.2 UN Proper Shipping Name

Proper Shipping Name	TOLUENE
----------------------	---------

14.3 Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.

Toluene

ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

14.6. Special precautions for user

EMS	F-E, S-D
Emergency Action Code	3YE
Hazard No. (ADR)	33
Tunnel Restriction Code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 SI No 716. (CHIP4).
Control of Substances Hazardous to Health Regulations (as amended). (COSHH)
Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007. (CDG 2009)
Environmental Protection (Duty of Care) Regulations.

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

Introduction to Local Exhaust Ventilation HS(G)37.

CHIP for everyone HSG(108).

Eu Legislation

EC Regulation 1907/2006 (as amended) : 'REACH'.

Dangerous Substances Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

Regulation (EC) No 1272/2008: CLP (Classification, labelling and packaging of substances and mixtures).

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

Risk Phrases In Full

R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable.
R38	Irritating to skin.
R63	Possible risk of harm to the unborn child.
R67	Vapours may cause drowsiness and dizziness.

Toluene

Hazard Statements In Full

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

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.