

SAFETY DATA SHEET

REGULATIONS 1907/2006 (REACH) , 1272/2008 (CLP), EC 453/2010 & 830/2015

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

1.1 Product identifier

GHS Product Identifier

Trade name

Chemical Name

CAS No.

EINECS No.

Index No.

TOLUENE

Toluene, Methylbenzene , Toluol

Methyl benzene, Benzene,methyl-

108-88-3

203-625-9

601-021-00-3

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

Identified use(s)

Uses advised against

Industrial uses , Manufacture of chemicals; Solvent ;

Other than identified

1.3 Details of the supplier of the Safety Data Sheet

Company Identification

Gapuma Group Ltd

No.4 Kew Wharf,

8 Kew Bridge Road

London TW8 0FJ

United Kingdom

T: +44 208 969 2056

Telephone

E-Mail (competent person)

gapumaSDS@gapuma.com

1.4 Emergency telephone number

Emergency Phone No.

+44 208 969 2056 (9-5 pm UK time)

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Physical hazards : Flam. Liq. 2 (H225)

Human health : Asp. Tox. 1 (H304) ; Skin Irrit. 2 (H315);

STOT SE 3 (H336) ; STOT RE 2 (H373) ; Repr. 2 (H361d)

Environment : Aquatic Chronic 2 (H412)

2.2 Label elements

2.2.1 Label elements

GHS Product Identifier

Hazard Pictogram

According to Regulation (EC) No. 1272/2008 (CLP)

EC 203-625-9



Signal word(s)

Hazard statement(s)

DANGER

H225: Highly flammable liquid and vapour.

H315: Causes skin irritation.

H304: May be fatal if swallowed and enters airways.

H336: May cause drowsiness or dizziness.

H373: May cause damage to organs through prolonged or repeated exposure.

H361d: Suspected of damaging the unborn child.

Precautionary statement(s)

P210: Keep away from heat/sparks/open flames/hot surfaces.
– No smoking.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof ventilating/ lighting equipment.
P242: Use only non-sparking tools.
P260: Do not breathe mist/vapours/spray.
P264: Wash (hands and exposed skin) thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P403+P235: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/container to: approved waste disposal facility.

2.3 Other hazards

Friction may cause sufficiently high static charge to induce sparks causing fire (or explosion). If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours).

2.4 Additional Information

Vapor mixes readily with air forming explosive mixtures.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EC Classification No. 1272/2008

Hazardous ingredient(s)	%W/W	CAS No	EC No.	Index no.	Hazard pictogram(s) and Hazard statement(s)
Toluene	>99	108-88-3	203-625-9	601-021-00-3	GHS 02, 07,08 Flam. Liq. 2 H225; Asp.Tox.1H304;Skin Irrit. 2 H315; STOT SE 3 ; H336;Repr. 2 H361d;STOT RE 2 H373; Aq Chr3; H412

3.2 Mixtures

3.3 Additional Information Classification acc. to GHS: Flam. Liq. 2) H225; (Skin Irrit. 2) H315; (Repr. 2) H361d (STOT SE 3) H336; STOT RE 2) H373; (Asp. Tox. 1) H304

For full text of H/P phrases see section 16.

4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep position comfortable for breathing. Seek medical treatment.

Skin Contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water.

Eye Contact	Immediately flush eyes for at least 15 minutes. Irrigate eyes thoroughly whilst lifting eyelids.
Ingestion	IF SWALLOWED: Do not induce vomiting wash out mouth with water. Seek medical treatment.
4.2 Most important symptoms and effects, both acute and delayed	May cause irritation to the respiratory system. Causes irritation to eyes and skin. Causes coughing. Causes breathing difficulty.
4.3 Indication of immediate medical attention and special treatment needed	Get medical advice/attention if you feel unwell.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media	
Suitable Extinguishing Media	water spray, foam, alcohol resistant foam, dry extinguishing powder, carbon dioxide (CO ₂)
Unsuitable Extinguishing Media	Do not use water jet
5.2 Special hazards arising from the substance or mixture	May give off noxious and toxic fumes in a fire.
5.3 Advice for fire-fighters	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Contain run-off water with, for example, temporary earth barriers.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment as required. Eliminate sources of ignition. Evacuate area. Avoid inhalation of vapours.
6.2 Environmental precautions	In case of fire, stop leak if safe to do so. Do not allow to enter drains, sewers or watercourses.
6.3 Methods and material for containment and cleaning up	Do not absorb spillage in sawdust or other combustible material. Absorb spillage in dry sand. Collect as much as possible in clean container for reuse or disposal.
6.4 Reference to other sections	Wear protective clothing as per section 8.
6.5 Additional Information	In event of a spill, evacuate danger area.

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Avoid direct contact with the substance. Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures.
7.2 Conditions for safe storage, including any incompatibilities	
Storage Temperature	Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Store in a tightly closed container. Protect from sunlight.
Storage Life	Refer to container labels.
Incompatible materials	Incompatible with strong oxidizing substances.
7.3 Specific end use(s)	See Sec 1.2

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters	For Toluene CAS 108-88-3
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8.1.1 Occupational Exposure Limits

Type of exposure	Value	Basis / Route of exposure
LTEL 8hr	50	UK/EH40 WEL Workplace

TWA ppm		Exposure Limits
LTEL (8 hr TWA mg/m ³)	191	UK/EH40 WEL Workplace Exposure Limits
STEL 15 min ppm	100	UK/EH40 WEL Workplace Exposure Limits
STEL (mg/m ³) 15 mins 384	384	UK/EH40 WEL Workplace Exposure Limits

8.1.2 Biological limit value

8.1.3 PNECs & DNELs

No data.

Human health values

Application Area	Route of exposure	Health effect	Value
Workers	Inhalation	Acute systemic effects	384 mg/m ³
Workers	Inhalation	Acute local effects	384 mg/m ³
Workers	Dermal	Long-term systemic effects	384 mg/m ³
Workers	Inhalation		192 mg/m ³
Workers	Inhalation	Long-term systemic effects	192 mg/m ³
Consumers	Inhalation	Acute systemic effects	226 mg/m ³
Consumers	Inhalation	Acute local effects	226 mg/m ³
Consumers	Dermal	Long-term systemic effects	226 mg/m ³
Consumers	Inhalation		56.5 mg/m ³
Consumers	Ingestion		8.13mg/kg BW/d

Compartment	Value
Soil	2.75 mg/cm ³
Marine water	0,68 mg/cm ³
Fresh water	0,68 mg/cm ³
Marine sediment	16.39 mg/cm ³
Fresh water sediment	6.39 mg/cm ³
Sewage treatment plant	13.69 mg/l

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Use good personal hygiene practices.

8.2.2 Personal protection equipment

Eye/face protection



Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)

Wear suitable protective clothing and gloves. Impervious gloves (EN 374).



Respiratory protection

Wear suitable respiratory protective equipment.



Thermal hazards

None known

8.2.3 Environmental Exposure Controls

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless
Odour	Aromatic
Odour Threshold (ppm)	N.A.
pH (Value)	~7.0
Melting/Freezing point	93 °C
Boiling point/boiling range (°C):	110-111 °C
Flash Point (°C)	4 °C (C.C.)
Evaporation rate	6 (Ether = 1) 2,0 (n-Butyl acetate)
Flammability	Highly flammable
Explosive limit ranges.	1,2 - 7,1 vol.%
Vapour Pressure	2,9 kPa (20°C) ; 12,3 kPa (50°C)
Vapour Density (Air=1)	~ 3.18
Density	0.865 g/mL at 25 °C
Solubility (Water)	0.58 g/l at 25 °C - partly soluble.
Solubility (Other)	Mineral oil , Fats , Organic solvents : Ethanol (100%), Ether (100%), Acetone (10%).
Partition Coefficient (n-Octanol/water)	- log Pow: 2.73 at 20 °C -
Auto Ignition Temperature (°C)	480 °C
Decomposition Temperature (°C)	
Viscosity (mPa.s)	: 0,57 mm ² /s (Kinematic)
Explosive properties	Non-explosive
Oxidising properties	No oxidising properties
Conductivity	: < 0.01 µS/cm
Surface tension	27.73 mN/m at 0.516g/l at 25 °C

9.2 Other information

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Reacts violently with oxidizing agents, strong acids and strong alkalis.
10.2 Chemical stability	Stable at ambient temperatures.
10.3 Possibility of hazardous reactions	Vapor mixes readily with air forming explosive mixtures. Agitation can cause build up of electrostatic charge
10.4 Conditions to avoid	Keep away from oxidisers, heat, flames or ignition sources.Exposure to light
10.5 Incompatible materials	Avoid contact with oxidising substances.Keep away from acids and alkalis.
10.6 Hazardous Decomposition Product(s)	Reaction products may include Carbon oxides , Aldehydes , Ketones

11. SECTION 11: TOXICOLOGICAL INFORMATION

RTECS: XS5250000

11.1	Information on toxicological effects	
11.1.1	Substances	
	Acute toxicity	
	Ingestion	LD50 (oral,rat) mg/kg: 5580
	Inhalation	LC50 (inhalation) mg/l/4h (Rat) : 25.7
	Skin Contact	LD50 (skin,rabbit) mg/kg: >5000
	Eye Contact	Slight irritant to rabbit eye
	Skin corrosion/irritation	Product degreases skin.Symptoms include: Redness, Dry skin , Rough skin
	Ingestion	After swallowing, some drops of liquid can enter the lungs (aspiration), which may cause pneumonia.Symptoms include: Abdominal cramps , Nausea
	Serious eye damage/irritation	Causes eye irritation
	Respiratory or skin sensitization	Sensitization (guinea pig) - Negative
	Mutagenicity	Not classified as mutagenic substance
	Carcinogenicity	Not classified as carcinogen /suspected carcinogen
	STOT - single exposure	To human : Vapours may cause drowsiness and dizziness. exposure Target organ(s) : Central nervous system
	STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure. May affect kidney and liver, resulting in organ damages
	Aspiration hazard	Aspiration may cause pulmonary oedema and pneumonitis
	Reproductive toxicity	Suspected of damaging the unborn child.
11.1.2	Mixtures	
11.2	Other information	Drowsiness, irritant effects, Dizziness, Convulsions, Headache, Nausea, Vomiting,Circulatory collapse, somnolence, inebriation, Unconsciousness, respiratory arrest, CNS disorders, respiratory paralysis

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	LC50 - Oncorhynchus kisutch (coho salmon) - 5.5mg/l - 96 h EC50 - Ceriodaphnia dubia (water flea) - 3.78 mg/l - 48 h Bacteria static test EC50 - Bacteria - 84 mg/l - 24 h NOEC (Algae, 72 h) : 10 mg/l (Skeletonema costatum) NOEC (Daphnia magna, 7 d) : 0,74 mg/l (Ceriodaphnia dubia)
12.2	Persistence and degradability	Biodegradability aerobic - Exposure time 20 d Result: 86 % - Readily biodegradable
12.3	Bioaccumulative potential	Bioaccumulation Leuciscus idus (Golden orfe) - 3 d - 0.05 mg/l(Toluene) Bioconcentration factor (BCF): 90.
12.4	Mobility in soil	No data
12.5	Results of PBT and VPVB assessment	Not classified as PBT or vPvB. Toxic to aquatic life.
12.6	Other adverse effects	No data

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	Dispose of contents in accordance with local, state or national legislation.
13.2	Additional Information	Triple rinse drums prior to recycling or disposal. Normal disposal is via incineration operated by an accredited disposal contractor.

14. SECTION 14: TRANSPORT INFORMATION

UN number	UN 1294
Proper Shipping Name	TOLUENE
Transport hazard class(es)	3
Packing Group	II
Hazard label(s)	



Environmental hazards	No
Special precautions for user	Haz identity No.33 Tunnel Category: 2 (D/E)

14.2 Sea transport (IMDG)

UN number	UN 1294
Proper Shipping Name	TOLUENE
Transport hazard class(es)	3
Packing Group	II
Marine Pollutant	No
Special precautions for user	

14.3 Air transport (ICAO/IATA)

UN number	UN 1294
Proper Shipping Name	TOLUENE
Transport hazard class(es)	3
Packing Group	II
Environmental hazards	
Special precautions for user	

14.4 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Haz identity No.33 Tunnel Category: 2 (D/E) EmS : (F-E, S-D)
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14. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) EC 453/2010 & 830/2015.
15.1.1 EU regulations	
Authorisations and/or restrictions on use	Not subject to international restrictions.
15.1.2 National regulations	
15.2 Chemical Safety Assessment	A REACH chemical safety assessment has not been carried out.

15. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

LEGEND

LTEL Long Term Exposure Limit
 STEL Short Term Exposure Limit
 TWA Time Weighted Average

Hazard statement(s) and Precautionary statement(s)

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