
1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Toluene
Synonyms	Tol, Methylbenzene, phenylmethane, Anisen
Grade	ACS, HPLC, Pesticide, Anapremium, Dehydrous
Company	Anaqua Chemicals Supply
	1510 Eldridge Parkway, Suite 110-268 Houston, TX 77077, USA
Telephone	(281)-668-0032
Fax	(281)-668-0033

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula	C ₇ H ₈
CAS-No.	108-88-3
Index-No.	601-021-00-3
Ec-No.	203-625-9
Concentration	> 95 %

3. HAZARDS IDENTIFICATION

Properties Affecting Health Inhalation of high vapor concentration may cause symptoms like drowsiness and dizziness. Cause skin irritation.

GHS Classification

Flammable liquid	Category 2
Skin irritation	Category 2
Reproductive toxicity	Category 2
Aspiration hazard	Category 1
Specific target organ toxicity- repeated exposure	Category 2
Specific target organ toxicity- single exposure	Category 3

4. FIRST AID MEASURES

Inhalation	If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Rinse mouth with water. Consult a physician immediately.
Skin Contact	Immediately wash off with plenty of water for at least 15 minutes. Consult a physician.
Eye Contact	Rinse through with plenty of water for at least 15 minutes. Consult a physician.
Note to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during fire fighting	Combustible material. Container may explode when heated. Vapors may form explosive mixtures with air at ambient temperature and vapors may flash back.
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective clothing and ventilation equipments. Avoid breath in vapors, mist or gas. Ensure adequate ventilation.
Environmental precautions	Do not release into drains.
Methods for cleaning up	Soak up with inert absorbent material and dispose in suitable, closed containers.

7. HANDLING AND STORAGE

Handling	Wear personal protective equipments. Avoid breath in vapors, mist or gas. Avoid contact with skin and eye. Keep away from hot surface, open fire and any sources of ignition. Take measures against electrostatic charge.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from source of ignition.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational exposure controls

Engineering Measures	Ensure that eye washer and emergency showers are close to the work place. Ensure adequate ventilation. Work under hood.
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Personal protective Equipment

Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Hand protection	Wear appropriate protective gloves.
Eye protection	Tightly fitting safety glasses.
Skin and body protection	Protective clothes should be selected specifically for the work place according to concentration and quantity of the chemical handled.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and at the end of working day.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Colorless
pH	No data available
Oxidizing properties	No data available
Melting point	-95 °C (-139 °F)

Boiling point	111 °C (231.8 °F)
Flash point	4.0 °C (39.2 °F)
Ignition temperature	523 °C (973 °F)
Lower explosion limit	1.2 % (V)
Upper explosion limit	7 % (V)
Vapor pressure	29.1 hPa (72.8 mmHg) at 20.0 °C (68.0 °F)
Density	0.865 g/mL at 25 °C (77 °F)
Water solubility	0.52 g/l at 20 °C
Partition coefficient: n-octanol/ water	log Pow: 2.65
Molecular weight	92.14

10. STABILITY AND REACTIVITY

Storage stability	Stable under recommended storage conditions
Conditions to avoid	Sources of ignition. Excess heat.
Materials to avoid	Strong oxidizing agents, Strong acid.
Hazardous decomposition products	Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity	LD50 Oral 636 mg/kg (Rat) LD50 Dermal 12,196 mg/kg (Rabbit) LC50 Inhalation 12,500- 28,800 mg/l (Rat) 4 h
Skin irritation	Skin irritation (Rabbit) 24 h
Eye irritation	Severe eye irritation (Rabbit) 24 h
Sensitization	No data available
Symptoms of Exposure	Drowsiness, Headache, Dizziness.
Specific target organ toxicity – single exposure (GHS)	May cause damage to organs
Specific target organ toxicity – repeated exposure (GHS)	No data available

12. ECOLOGICAL INFORMATION

Persistence and degradability	No available information
Ecotoxicity	
Toxicity to fish	LC50 7.63 mg/l (Rainbow trout) 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 6 mg/l (Daphnia magna) 48 h
Toxicity to algae	IC50 12 mg/l (Green algae) 72 d
Mobility	No available information

13. DISPOSAL CONSIDERATIONS

Product	Chemical should be disposed of in accordance with local environmental regulations. Contact a licensed professional waste disposal service to dispose of this chemical.
Packaging	Empty containers should be disposed of in accordance with local environmental regulations and taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

IATA

UN-Number: 1294 Class: 3 Packing group: II

Proper shipping name: Toluene

IMDG

UN-Number: 1294 Class: 3 Packing group: II

Proper shipping name: Toluene

EMS-No. F-E, S-D

ADR/RID

UN-Number: 1294 Class: 3 Packing group: II

Proper shipping name: Toluene

15. REGULATORY INFORMATION

Hazard statements

H225: Highly flammable liquid and vapor

H304: May be fatal if swallowed and enters airways

H315: Causes skin irritation

H336: May cause drowsiness or dizziness

H361: Suspected of damaging fertility or the unborn child

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

Precautionary statements

P210: Keep away from heat/spark/open flames/hot surface.

P301 +P310: If swallowed: Immediately call a poison center or doctor/physician

P331: Do not induce vomiting

P302+P352: If on skin: Wash with plenty of soap and water

OSHA Hazards

Flammable liquid, Target organ effect, Irritant, Harmful by skin absorption

DSL Status

All components of this product are on the Canadian DSL list.

xGHS-Labeling

Pictogram



Signal word *Danger*

Labeling according to EC Directive

Symbol(s): Xn- Harmful F- Highly flammable

R-phrase(s): 11-38-48/20-63-65-67

Highly flammable. Irritating to skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapors may cause drowsiness and dizziness.

S-phrase(s): 36/37-46-62

Wear suitable protective clothing and gloves. If swallowed, seek medical advice immediately and show the container or label. If swallowed, do not induce vomiting, seek medical advice immediately and show the container or label.

16. OTHER INFORMATION

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