



Safra

TOLTM

[Toluene]

TECHNICAL DATA SHEET



MATERIAL SAFETY DATA SHEET

Safety Department

Review:2.5

September 13, 2006

10-QSR-MDS

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1) MATERIAL IDENTIFICATION:

Safra Product Name	Toluene (1202)
Product Trade Name	SAFRATOL™
Chemical Symbol	C ₇ H ₈ Aromatic hydrocarbon
Molecular weight	92.15
ID # & CAS #	ID # UN 1294 & CAS # 108-88-3
Manufacturer:	Safra Company in its Yanbu Refinery
Address:	P.O.Box: 30063, Yanbu Al Sinaiyah, Kingdom of Saudi Arabia
Country of Origin & Production	Kingdom of Saudi Arabia

2) PHYSICAL & CHEMICAL PROPERTIES:

a- PHYSICAL PROPERTIES

Flash Point	40 °C
Boiling Range	110.2 – 111.8 °C Typical values(Method ASTM D850)
Vapor Density (Air = 1)	3.14
Specific Gravity (H ₂ O = 1)	0.840 to 0.874 min
Solubility in Water	Negligible
Vapor Pressure (KPA)	3 @ 20 °C
Evaporation rate (Butyl Acetate = 1)	1.72
Appearance and odor	Clear, bright liquid with Benzol like strong odor.

b- CHEMICAL PROPERTIES

Aromatic Content	84 % Vol.
Sulfur Content	Free
Copper Corrosion	1 Max.

3) COMPOSITION DATA:

Ingredients	Min. 84 % Vol. Aromatic toluene
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4) HEALTH HAZARDS:

TLV	100 PPM
Inhalation	Irritating to the respiratory tract. Moderately toxic by inhalation route. It can cause dizziness and suffocation.
Skin Contact	Contact may irritate or burn the skin. Toxic by subcutaneous route.
Effect of repeated over exposure	It affects the human central nervous system. It may cause anemia and enlarged liver.

5) FIRE FIGHTING MEASURES:

Extinguishing Media	Use foam, dry chemical powder, Carbon dioxide.
Special Fire Fighting	Use self contained breathing apparatus and protective clothing. Avoid spreading, burning liquid with water which should be used for cooling containers as water spray.



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Unusual Fire and Explosion Hazard Moderately explosive when exposed to flame or chemically reacted. Vapor from this product, may travel or be moved by air currents and be ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from handling point.

Small Fire Dry chemical powder, CO2 & water supply.

Large Fire Water spray, fog or foam. Move containers or drums from fire area if you can do it without risk. Cool containers that are exposed to flames with water from the sides until / and after fire is out.

6) EMERGENCY AND FIRST AID MEASURES UPON EXPOSURE TO THE MATERIAL:

Swallowing Do not induce vomiting. Keep patient at rest. Seek immediate medical attention.

Inhalation Move victim to fresh air, call emergency medical care. If not breathing give artificial respiration. If breathing is difficult give oxygen.

Skin Contact Remove contaminated clothing and wash affected area with soap and water. Seek Medical advise.

Eye contact Immediately flush eyes with running water for at least 15 minutes. Get medical care without delay.

7) STABILITY & REACTIVITY DATA:

Stability Stable

Hazardous Combustion or Decomposition products Burning may produce carbon monoxide and/or carbon dioxide. When heated it emits irritating fumes, can react vigorously with oxidizing materials.

Hazardous polymerization Will not occur.

Condition to avoid Heat, Sparks, build up of static charge.

8) ACCIDENTAL RELEASE/SPILL/LEAK MEASURES:

Steps to be taken if the material is released or spilled :

1. Notify safety personnel of leaks or spills.
2. Eliminate all sources of ignition until area is determined to be free from explosion hazard.
3. Provide adequate ventilation & instruct personnel to use protection against liquid contact and vapor or mist inhalation.
4. Contain spill by diking
5. Small spills could be washed away to the API separator or may be contained by using absorbents. Large spill after diking should be recovered by pumping (Use explosion proof pump).
6. Stop leak if you can without risk.
7. Use water spray to reduce vapors.

9) DISPOSAL CONSIDERATION:

Disposal Method Incinerate in a special furnace or if the quantity is small expose for weathering, abide to local regulations. Other disposal method is burial in approved land fill.



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10) EXPOSURE CONTROLS/ PERSONAL PROTECTION EQUIPMENT FOR DEALING WITH THE MATERIAL:

Respiratory Protection
Ventilation

Use gas mask for respiratory protection.
Provide adequate ventilation where operating conditions may create excessive vapors or mists. This product should be confined within closed containers in which case general (mechanical) ventilation should be sufficient. Use explosion proof equipments. Special local ventilation is recommended at points where vapors can be expected to escape to the work place air.

Hand/Body Protection
Eye Protection

Use PVC or Neoprene gloves/impermeable aprons.
Chemical splash goggles. An eye wash fountain and washing facilities to be readily available near handling areas.

11) HANDLING & STORAGE:

Handling

Use non sparking tools and explosion proof electrical equipments; Prevent static electric spark by grounding transfer equipment; Avoid breathing vapors; Use with adequate ventilation; Don't get in eyes or skin or clothing, wash thoroughly after handling; Call safety for any problem.

Storage

Store in closed containers in a cool, dry and well ventilated area away from source of open flame, heat, strong oxidizing agents and ignitions; Label all containers and sample bottles.

12) TOXICOLOGICAL INFORMATION:

Skin Absorption
Safety profile

None currently known.
Mildly toxic by ingestion and inhalation, irritation can start at 200 ppm.

13) ECOLOGICAL INFORMATION:

Not established

14) TRANSPORT INFORMATION:

Hazard Class
ID # & CAS #
Label & Placard

3
ID # UN 1294 & CAS # 108-88-3
Flammable Liquid & Flammable



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15) REGULATORY INFORMATION

EU Risk Phrases

11-20

EU Safety Phrases

(2-)16-25-29-33

Flammable, Harmful: may cause lung damage if swallowed /Avoid exposure-Obtain special instructions before use- In case of accident or if you feel unwell seek medical advice immediately- Keep away of children reach- Do not breath vapors- Avoid contact with skin- Do not empty into drains- In case of fire use foam/ DCP/ CO2/ Halon- If swallowed do not induce vomiting and show label or container.

16) OTHER INFORMATION:

Precautionary Label Text



DANGER!; EXTREMELY FLAMMABLE LIQUID & VAPOR; VAPOR MAY CAUSE FLASH FIRE , MAY CAUSE SKIN, NOSE, THROAT & LUNG IRRITATION; KEEP AWAY FROM HEAT, SPARKS & FLAME; USE WITH ADEQUATE VENTILATION; KEEP CONTAINER CLOSED; NEVER SIPHON BY MOUTH; DO NOT USE AS SKIN CLEANING AGENT; DO NOT CUT/ WELD ON OR NEAR EMPTY CONTAINERS BEFORE PROPER CLEANING AS THEY CONTAIN PRODUCT RESIDUE ; FIRST AID INSTRUCTIONS