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MATERIAL SAFETY DATA SHEET

PARA-TOLUIDINE 99% (For Synthesis) (4-Amino Toluene) MSDS CAS : 106-49-0

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product Product Name: PARA-TOLUIDINE CAS#: 106-49-0 Synonym: 4-Amino Toluene Chemical Name: Not available. Chemical Formula: C7H9N

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet:

<u>Company identification</u>: OXFORD LAB FINE CHEM LLP Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6, Navghar, Vasai (East). Palghar - 401 210. Mumbai, Maharashtra, INDIA. Tel: 91-250-2390989 Tel/Fax: 91-250-2390032

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
PARA-TOLUIDINE	106-49-0	100%

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Section 3: Hazards Identification

<u>Classification of the substance or mixture</u> Classification according to Regulation (EC) No 1999/45 Classification : Carc. Cat. 3; R40 T; R23/24/25 Xi; R36 R43 N; R50

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards: Carcinogenicity - Category 2 - Warning (CLP : Carc. 2) H351
Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331
Skin sensitisation - Category 1 - Warning (CLP : Skin Sens. 1) H317
Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301
Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311
Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319

Environmental hazards :

Hazardous to the aquatic environment - Acute hazard - Category 1 – Warning (CLP : Aquatic Acute 1) H400

<u>Other hazards</u>: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

Section 4: First Aid Measures

Description of first aid measures

Inhalation: Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

Skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. Wash with plenty of soap and water. Remove/Take off immediately all Contaminated clothing. Wash contaminated clothing before reuse.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

Ingestion: Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms relating to use: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Suspected of causing cancer. Danger of serious damage to health by prolonged exposure through inhalation. Causes serious eye irritation. May cause an allergic skin reaction. Swallowing a small quantity of this material will result in serious health hazard.

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Section 4: First Aid Measures (Continued)

Indication of any immediate medical attention and special treatment needed

General information: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Section 5: Fire and Explosion Data

Extinguishing media	
Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
Surrounding fires	: Use water spray or fog for cooling exposed containers.

Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

Advice for fire-fighters

Protection against fire: Do not enter fire area without proper protective equipment, Including respiratory protection.

Special procedures: Exercise caution when fighting any chemical fire. Avoid (reject) Fire-fighting water to enter environment.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For emergency responders: Equip cleanup crew with proper protection. Ventilate area.For non-emergency personnel: Evacuate unnecessary personnel.

Environmental precautions:

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

Methods and materials for containment and cleaning up

Clean up methods: Soak up spills with inert solids, such as clay or Diatomaceous earth as soon as possible. Store away from other Materials. Collect spillage.

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Section 7: Handling and Storage

Precautions for safe handling

Handling: Avoid breathing dust, fume, gas, mist, vapours, spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Technical protective measures: Provide good ventilation in process area to prevent formation of Vapor.

Conditions for safe storage, including any incompatibilities

Storage: Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.Storage - away from: Strong bases. Strong acids. Sources of ignition. Direct sunlight.

Section 8: Exposure Controls/Personal Protection

Personal protection : Avoi

- : Avoid all unnecessary exposure.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hand protection
- : Wear protective gloves.
- Eye protection

• Others

- Chemical goggles or safety glasses.When using, do not eat, drink or smoke.
- **Control parameters**

Occupational Exposure Limits: No data available.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state at 20 °C	: Solid
Color	: White crystalline
Odor	: Aromatic odor
Odor threshold	: No data available.
pH value	: 7-8
Melting point [°C]	: 42 - 45 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 482°C
Flammability (solid, gas)	: N/A

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Section 9: Physical and Chemical Properties (Continued)

Flash point [°C]	: 87 °C
Boiling point [°C]	: 200°C
Initial boiling point [°C]	: 200 C : N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: 1 mm Hg @ 20C
Vapour pressure mm/Hg	: 1 mm Hg @ 20C
Vapour density	: 3,9
Density [g/cm3]	: 0,973
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble in water
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: 7,8
Viscosity at 40°C [mm2/s]	: N/A
Molecular Weight	: 107.16
Other information	
Explosive properties	: N/A
Explosion limits - upper [%]	: 6,60%
Explosion limits - lower [%]	: 1,10%
Oxidizing properties	: No data available.

Section 10: Stability and Reactivity Data

<u>Reactivity</u> Reactivity : Not established.

<u>Chemical stability</u> Chemical stability : Stable under recommended storage conditions.

<u>Possibility of hazardous reactions</u> Hazardous reactions : Not established.

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Section 10: Stability and Reactivity Data (Continued)

Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures, Moisture

Incompatible materials

Materials to avoid : Strong acids. Strong bases.

Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity : LD50-oral-rat - 336 mg/kg Remarks: Peripheral Nerve and Sensation: Spastic paralysis with or without sensory change. Behavioral : Somnolence (general depressed activity). Behavioral : Convulsions or effect on seizure threshold

• Inhalation	: LC50-inhalation-rat-1h-> 646 mg/m3
• Dermal	: LD50-dermal-rabbit-890 mg/kg
 Ingestion 	: Toxic if swallowed.
Corrosion	: Based on available data, the classification criteria are not met.
Irritation	: Causes serious eye irritation.
Sensitization	: May cause an allergic skin reaction.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Suspected of causing cancer.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

Section 12: Ecological Information

Toxicity

Toxicity information : Toxicity to fish LC50: Pimephales promelas (fathead minnow):13,5-16,3 mg/l -96,0 h Toxicity to daphnia and other aquatic nvertebrates: EC50-Daphnia magna (Water flea): 0,10 -0,16 mg/l -48 h Toxicity to algae:EC50:Pseudokirchneriella subcapitata (green algae):0,2 mg/l-14d

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Section 12: Ecological Information (Continued)

<u>Persistence – degradability</u> Persistence - degradability : Biodegradable.

Bio accumulative potential Bio accumulative potential : Not established.

Mobility in soil Mobility in soil : Not established.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

Other adverse effects Environmental precautions: Avoid release to the environment.

Section 13: Disposal Considerations

Waste treatment methods

General: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions: Hazardous waste due to toxicity.

Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name	: TOLUIDINES, LIQUID
UN N°	: 3451
H.I. nr	: 60
ADR - Class	: 6.1
Labelling – Transport	: 6.1 : Toxic substances.
ADR - Group	: II

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Section 14: Transport Information (Continued)

Sea transport (IMDG) [English only]Proper shipping name: TOLUIDINES, LIQUIDUN N°: 3451IMO-IMDG - Class or division : 6.1 : Toxic substances.IMO-IMDG - Packing group : II

Air transport (ICAO-IATA) [English only]

Proper shipping name	: TOLUIDINES, LIQUID
UN N°	: 3451
IATA - Class or division	: 6.1 : Toxic substances.
IATA - Packing group	: 11

Section 15: Other Regulatory Information

<u>Safety, health and environmental regulations/legislation specific for the substance or mixture:</u> Ensure all national/local regulations are observed.

REACH Restrictions - Annex XVII: The components of this product are not subject to restrictions. **REACH Authorization - Annex XIV:** The components of this product are not subject to authorization.

Chemical Safety Assessment

Chemical Safety Assessment: It has not been carried out.

Section 16 - Additional Information

<u>References</u>: Not available.

Other Special Considerations: Not available.

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