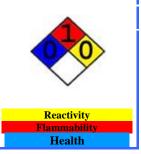
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Product Name:

LAB (linear alkyl benzene)



1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Identification of the substance or preparation: Linear alkyl benzene

Country of origin: Iran (Islamic Republic of Iran)

CAS Number: 67774-74-7

Synonyms: Linear Alkyl Benzene / LAB

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances present at a concentration below

Hazardous substances: It is dangerous for environment also high toxic

for aquatic organisms.

Hazardous label(s): Very toxic to aquatic organisms.

Toxicological characteristics: It is dangerous for environment also high toxic

for aquatic organisms. ACUTE TOXICITY

imum danger: O

the minimum danger:

Oral:

LD50: > 5000 mg/kg (rats)

Dermal:

LD50: > 2000 mg/kg (rats)

Inhalation:

LC50: > 1.82 mg/l (rats)

Other component:

3. IDENTIFICATION OF HAZARDS

Risk phrases: Very toxic to aquatic organisms.
Skin contact: Rabbits: Negligible to slight irritation

Eye contact: Negligible irritant properties Inhalation : LC50: > 1.82 mg/l (rats)

If swallowed: Do not induce vomiting. Medical attention must

be taken.

Other information: None

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4. FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor NEVER induce swallowing in an unconscious person.

Skin contact: Wash skin with soap and upon contact.

Remove contaminated clothing. If irritation persists, get medical attention.

Wash clothing before reuse.

In case of exposure by inhalation: Take the exposures person to fresh air.

Artificial respiration or giving oxygen is necessary if not breathing or breathing is

difficult.

In case of splashes or contact with eyes: Wash the eyes with current water for at

least 20 minutes. Get medical attention.

In case of swallowing:
Note of physician:
Note of physician. Do not induce vomiting. Get medical attention.

5. FIRE FIGHTING MEASURES

Flammable class:

Suitable extinguishing media:

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Special protective equipment for fire

fighting:

Other information:

Flammable.

CO2, water spray or AFFF foam

Toxic fumes of carbon oxides produced on

combustion.

Fire extinguishing from maximum distance or use hose holder or monitor nozzle.

After fire is extinguished, use cooling water

over the hot containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Respiration: air-purifying or air-supplied

equipment depending on concentration.

Environmental precautions: Dike flow of spilled material using soil or

sandbags to minimize contamination of drains, surface and ground waters. If LAB has flowed into drains, ponds or sewage systems, inform

appropriate authority.

Methods for cleaning up and disposal: Wastes must be incinerated under controlled

conditions or disposed under ground by the

regulations.

Other information: None

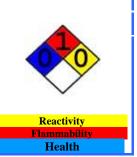
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7. HANDLING AND STORAGE

The regulations relating to storage premises apply to workshop where the product is handled:

Handling: Handle in accordance with good hygiene and safety

procedures. Avoid contact with eyes, skin and clothing Wash

thoroughly after handling. Keep away from source of

ignition. Tank cars, Tank trucks

Storage: Store in original closed containers in a cool, dry, well-

ventilated area. This product is non-corrosive

Carbon steel, Baked epoxy, Phenolic resin coatings or

Aluminum Drams is suitable.

Store separately from all combustible, organic and

oxidizable materials.

Other information: **Detergent intermediate.**

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values: Not established

Ventilation: Local exhaust or mechanical **Exposure controls:**

ventilation; the recent method is necessary if

the workshop temperature is high.

Personal protective equipment:

Chemical goggles or face shield **Eye protection:**

Respiratory protection: Air-purifying or air-supplied equipment

depending on concentration.

Hand protection: Rubber gloves or other similar impervious

> material to prevent repeated contact. Dependent upon degree of potential

Skin and body protection:

exposure, additional personal protective equipment may be required, for example

chemical boots and full protective

clothing.

Boiling point/Boiling range: 278 – 314 C at **Health measures:**

1013 KPa , Flash point: 120-140 C ,

Explosive properties: None

Highly biodegradable (95% or greater) **Environmental exposure controls:**

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9. PHYSICAL AND CHEMICAL PROPERTIES

General information: Detergent intermediate

Appearance (at 20°C): Oily liquid Colourless **Colour:** Odour: **Odourless** PH (at 20°C): Not instant Boiling point/range (°C): $275^{\circ}C - 314^{\circ}C$ 120°C -140°C Flash point (°C): Flammability: Flammable. **Auto-ignition temperature:** Not available

Explosive properties: None

Oxidising properties:

Vapour pressure (at 20°C):

Not available
0.01 mmHg

Density (at 20°C): Specific Gravity: 0.86 Solubility (at 20°C): water solubility: Insoluble

Solubility in fats: Soluble

Viscosity (40°C): 5-10 cps at 20°C Evaporation rate: Not available

Other information:

10. STABILITY AND REACTIVITY

Stability: Chemically stable but strong oxidizers can

affect it

Conditions to avoid:

Not available

Material to avoid: Not available

Hazardous decomposition products: Carbon oxides as toxic fumes (on combustion)

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11. TOXICOLOGICAL INFORMATION

Acute toxicity: - LD₅₀, oral, rat (mg.kg⁻¹): > 5000 mg/kg

- LD₅₀, oral, mouse (mg.kg⁻¹): Not available

- LD₅₀, dermal (mg.kg⁻¹): > 2000 mg/kg

Sub chronic – chronic toxicity: Unknown

Sensibilization: Not a skin sensitizer

Carcinogenicity:
Reproductive effects:
Not available
Human experience:
Not available
Other information:
Not available

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Bioaccumulative potential:

Mobility:

Persistence and degradability:

It is dangerous for environment also high toxic

 $for \ aquatic \ organisms.$

Lepomis macrochirus: BCF = 35 (measured) Moderate volatilization from water medium Aerobic biodegradation: LAB biodegrades readily; OECD 301 F: biodegradation of 64% after 28 days; OECD 301 B: biodegradation of 67% (measured by CO2 evolution) after 28 days ; Standard River Die-away Test: concentrations of 100-500 ppb – primary degradation > 90%

and a half – life of 4-15 days; Trickling filter and activated sludge plants: Average % removals > 69% to >98%

Anaerobic biodegradation : Biodegradation of >

70%

Other adverse effects: LAB biodegrades readily. It is toxic to Daphnia,

shows no adverse effects in fish and Algae. LAB

has low solubility in water (0.041 mg/l).

13. DISPOSAL CONSIDERATIONS

Disposal of product: Disposal is to be performed in compliance

with all government regulations. Do not dispose of via sinks or into immediate

environment.

Disposal of packaging: Since empty contaminated containers

contain product residue, follow all hazards

warnings and precautions even after

container emptied.

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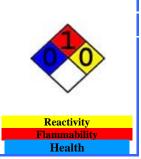
ADR/RID:

Maritime transport:

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14. TRANSPORT INFORMATION

Class/Packaging group: 9/III

Hazard ID No. : 90 UN No. : 3082

Land transport: UN NO. :
Proper Shipping name:

Environmentally hazardous substance,

liquid, n.o.s (Benzene, C10-13A Class/Packaging group: 9/III

Hazard ID No. : 90 UN No. : 3082

Proper Shipping name:

Environmentally hazardous substance, liquid, n.o.s (Benzene, C10-13Alkyl

derivatives)

Marine Pollutant : Yes UN No. : 3082

Class/Packaging group: 9/III

Proper shipping name:

Environmentally hazardous substance, liquid, n.o.s (Benzene, C10-13-Alkyl

derivatives)

Air transport: UN No. : 3082

Class/Packaging group: 9/III

Proper shipping name:

Environmentally hazardous substance, liquid, n.o.s (Benzene, C10-13-Alkyl

derivatives)

15. REGULATORY INFORMATION

Hazardous label(s): Very toxic to aquatic organisms

Safety phrases: S57 - Use appropriate containment to

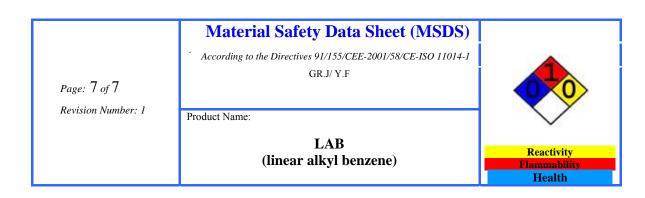
avoid environmental contamination.

S61 - Avoid release to the environment.

Refer to special instructions/Safety data

sheet.

Risk phrases: R50 - Very toxic to aquatic organisms



16. OTHER INFORMATION

None

The contents and format of this MSDS are in accordance with EEC Commission Directive 2001/58/EC