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**DetenLAB® 240**

Produto: Linear Alkyl Benzene  
Nº MSDS: DT01  
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Date of Revision: 10/15/2010 – rev. 04

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product Name : Linear Alkyl Benzene

#### 1.2 Product Code:

**DetenLAB® 240**

Linear Alkyl Benzene with paraffin lateral chain of 10-13 carbon atoms, with mean average number of 11.7 carbon atoms.

CAS<sup>a</sup>: 67774-74-7 EINECS<sup>b</sup>: 267-051-0

(Benzene), C10-13 – alkyl derivative)

Formula:  $\text{CH}_3 - (\text{CH}_2)_n - \text{CH} [\text{C}_6\text{H}_5] - (\text{CH}_2)_m - \text{CH}_3$  ( $n + m = 7 - 10$ ) ( $n, m = 0 - 10$ )

Mean molecular weight: 238 – 245

Alternative names – Alkyl benzene mixtures, Alkane.

#### 1.3 Product Use

DetenLAB – Linear Alkyl Benzene is the basic intermediary petrochemical product for the production of sulphonic linear alkyl benzene, the surfactant most commonly used all over the world in liquid and power detergent formulation for household and other industrial and institutional detergents formulations.

#### 1.4 Supplier/Manufacturer's Name

DETEN QUÍMICA S.A.

Rua Hidrogênio 1744 – COPEC – Complexo Petroquímico de Camaçari – Bahia (Brazil)

Business phone: +55 71 3634-3207 / 08 Fax.: +55 71 3634-5155

#### 1.5 Emergency Phone

DETEN QUÍMICA S.A.

+ 55 71 3634-3333

0800-284-8474

### 2. RISK IDENTIFICATION

#### 2.1 Physical/chemical hazards

Eyes: Contact with liquid or high vapor concentrations can cause irritation.

Skin: Prolonged or repeated exposure to skin can cause irritation or dry skin and potential dermatitis.

Inhalation: Owing to its low volatility, the product does not pose inhalation risks under normal operation conditions. The prolonged exposure to high vapor concentrations can cause dizziness and headache.

Ingestion: If this product is swallowed, it can provoke nausea and vomiting.

Overexposure effect :

Acute overexposure: Irritation, dizziness and nausea

Chronic overexposure: Not known

#### 2.2 Fire and explosion hazard

None

See Section 10: "STABILITY AND REACTIVITY".

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

See Section 1.1 "IDENTIFICATION OF PRODUCT AND COMPANY".

There are no hazardous substances or products.

This product has not been classified as a substance of hazard/preparation, according to the pertinent legislation. However, care must be taken while handling chemicals (see Section 15: "REGULATIONS").

### 4. FIRST AID MEASURES

Contact with the eyes: Flush with water for 15 minutes. Seek the assistance of an ophthalmologist.

Contact with the skin: Take off contaminated clothing. Rinse with plenty of water. If irritation persists, seek medical assistance.

Inhalation: Move victim away from exposure to a ventilated area out of danger. If necessary, administer artificial breathing, oxygen or cardiopulmonary resuscitation and search medical assistance.

Ingestion: Do not induce vomiting. Search medical assistance.

### 5. FIRE FIGHTING MEASURES

Extinguishing media: Neither inflammable nor toxic, but can be decomposed during a fire releasing toxic gases. Water vapor, dry chemical or CO<sub>2</sub> foam.

Special fire fighting procedures: wear self contained breathing apparatus while performing fighting fire procedures in confined spaces.

Protection against fire and explosion: The ones normally used with this kind of hydrocarbons.

Hazardous combustion products: fume and carbon monoxide (CO).

### 6. LEAKAGE AND SPILL CONTROL MEASURES

Personal precautions: Wear PPE (Personal Protective Equipment)

See Section 8: "EXPOSURE CONTROL AND PERSONAL PROTECTION"

Environmental precautions

On land: Keep people away. Eliminate the ignition sources. If possible, contain the spill. Avoid sewers, courses of water and groundwater contamination, as well as soil and vegetation contamination. Inform the authorities and warn the neighborhood, in case it persists.

Stop the spill with inert absorbing material such as sand or earth. Place the recovered material in suitable containers for recycling or disposal.

Consult an expert on recovered material disposal. The material can be incinerated under normal controlled conditions or placed in a landfill, according to local and official regulations.

On Water: Inform shipping personnel. Notify the port or competent authority and keep people away from it.

Isolate the area and avoid ecological damage. Stop and confine the spill, if possible. Remove the product from the surface, absorbing the contaminated cover or using suitable absorbers.

Consult an expert on recovered material disposal and ensure its compliance with local and official regulations.

See also Section 4 "FIRST AIDS" and Section 10 "STABILITY AND REACTIVITY".

### 7. HANDLING AND STORAGE

Storage temperature: room temperature

Loading/unloading temperature: room temperature

Storage pressure : Atmospheric

Risk of electrostatic accumulation: None

Viscosity at loading/unloading temperature: 4,5 Cst (at 32 °C)



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Normal shipping system:

Tank-car  
Tank- truck  
Drums

Coating and handling materials:

Appropriate: Carbon steel, baked epoxy or phenolic laminate or aluminum coating  
Not appropriate: Natural and butyl rubber

The use of local vent is recommended in confined spaces or high temperatures. Incompatibility with strong oxidizers. Avoid storing material near them, which can aggravate fire hazard.

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## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Personal Protective Equipment: Impervious PVC gloves in activities that have direct contact with the product, ventilation or air – supplied equipment in case of emergency and in closed spaces. Safety goggles to protect from organic products splash.

Take off the wet/contaminated clothes, contain few product quantity, that can cause skin irritation or exsiccation not notice in the beginning.

Hygiene at work: Avoid contact with the product and overexposure to high vapor concentrations.

Threshold limit value (TLV): not established.

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## 9. PHYSICAL/CHEMICAL PROPERTIES

Appearance:

Physical state: Liquid  
Color: Colorless, transparent  
Odor: Odorless  
Ph: Not applicable  
Boiling point: 285-308 °C (ASTM D 86-82)  
Melting/freezing point: <-50 °C (ASTM D 97-87)  
Flash point, P/M: 140 °C (ASTM D 93-85)  
Auto-ignition temperature: 338 °C (ASTM and 659-78)  
Flammable limits in air (% vol): Unknown  
Vapor pressure (at 20 °C): <0.1 mm Hg (ASTM D 323-89)  
Density (at 15 °C): 0.858-0.868 g/cm<sup>3</sup> (ASTM D 4052 –86)  
Solubility in water (at 20 °C): 40 µg/l  
Vapor density (Air = 1) : 8.4  
Viscosity (at 32 °C): 4.5 Cst (ASTM D 445-88)

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## 10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid instability: Not applicable

Materials and conditions to avoid incompatibility: None

Conditions to avoid polymerization: Not applicable

Hazardous decomposition products: None

Thermal decomposition: Vaporizes without decomposition

Hazardous reactions: Not known.

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## 11. TOXICOLOGICAL INFORMATION

Acute lethal dermal dose for rats: > 2,0 g/kg

Contact with the skin: Dermal irritation in rabbits from mild to well-defined.

Contact with the eyes: When instilled on rabbit's eyes, it does not provoke positive reaction, according to the test criteria of the Organization for Economic Cooperation and Development - OECD<sup>1</sup>.

Inhalation: No available information

Ingestion : Acute lethal oral dose for rats: > 5,0 g/kg

Prolonged exposure effects:

Acute: irritation, dizziness, nausea

Chronic: Unknown

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## 12. ECOTOXICO LOGICAL INFORMATION

NOEC<sup>2</sup> (Daphnia<sup>3</sup>): 7,5 µg/l

Biodegradation: %CO<sub>2</sub> = 61 OCDE Method: 301 B

Photo degradation: not available

Bioaccumulation:

Log Pow: octanol/water partition coefficient: > 5

Soil biodegradation - Half life: Approximately 15 days

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## 13. TREATMENT AND DISPOSAL CONSIDERATIONS

Avoid contact with the eyes and skin when disposing water or surplus material. Wear impervious gloves, overalls and safety goggles.

The wastes can be incinerated under controlled conditions or placed in landfill, according to the official regulations (national and/or local).

Do not mix up with strongly oxidizing products.

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## 14. TRANSPORTATION INFORMATION

Hazard class

Code:

IMO<sup>4</sup>/IMCO<sup>5</sup>: Not hazardous

UN<sup>6</sup>: not applicable

IATA<sup>7</sup>: not applicable

TPC/ADR: not harmful

TPF/RID<sup>8</sup>: not applicable

Other data:

Transportation Temperature: room temperature

Transportation pressure: Atmospheric

Load/unload : room temperature

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## 15. REGULATIONS

Classification and labeling according to Ministry of Transportation Act number 420 of 2004 that regulates land transportation of hazardous products:

Classification/symbol: not controlled – non-hazardous product

Decree no. 96.044 – Road transportation of hazardous products and successive modifications and adaptations.

Decree no. 98.973 – Rail transportation of hazardous products and successive modifications and adaptations.

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## 16. OTHER INFORMATION

If necessary, or in case of doubts, contact Deten Química or visit our web site at: [www.deten.com.br](http://www.deten.com.br).

Additional information available by formal request.

- a. CAS - Chemical Abstract System No.
- b. EINECS - European Inventory of Existing Commercial Chemical Substances
  1. OCDE: Organization for Cooperation Development and Economic
  2. NOEC: Non-observed Effect of Concentration
  3. Samples of sediments were collected at the bottom of Sinos river with the Daphnia magna micro-crustaceus
  4. IMO: International Maritime Organization
  5. IMCO: International Maritime Consultative Organization – UN Organism
  6. UN: United Nations
  7. IATA: International Air Transport Association
  8. RID: Regulation for international transportation of goods by road (European law)

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### ® DETEN'S TRADEMARK

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