

Material Safety Data Sheet

Heavy Alkyl Benzene (HAB)

1 PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Use

This high purity product is used primarily for the production of lubricating oil.

2 COMPOSITION / INFORMATION ON INGREDIENTS

2.1 Product Information

Material Name	Benzene C 10-13 mono alkyl
CAS No.	84961-70-6
EINECS No.	284-660-7
Synonyms / Trade Name	Heavy Alkyl Benzene / HAB Phenyl Heavy Alkanes.

3 HAZARD IDENTIFICATION

3.1 Health Effect

Eye	Liquid contact or exposure to high vapour concentrations may result in irritation.
Skin	Repeated or prolonged skin contact may result in irritation or drying of the skin, progressing to dermatitis.
Inhalation	Due to low volatility, this product is not hazardous under normal circumstances. Prolonged exposure to high vapour concentrations may cause dizziness and headaches.
Ingestion	Ingestion of small amounts may result in nausea and vomiting.

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3.2 Environmental Hazard

Eco-toxicity : Not available
BOD5 and COD : Not available
Biodegradation : Inherently biodegradable

4 FIRST AID MEASURES

Eye Flush thoroughly with water for at least 20 minutes. Seek medical attention.

Skin Remove contaminated clothing and wash it before reuse. Flush affected areas with large amounts of water for at least 20 minutes. Wash area with mild soap and water. If irritation occurs, seek medical attention.

Inhalation Move person to fresh air. If breathing has stopped, administer artificial respiration, oxygen or cardiopulmonary resuscitation if needed. Seek medical attention.

Ingestion DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Seek medical attention.

5 FIRE FIGHTING MEASURES

5.1 Fire Data

- Flash point (°C) : > 180 °C
- Auto ignition temperature (°C) : Unknown
- Lower Flammable Limits in Air (% by Vol.) : 0.6
- Upper Flammable Limits in Air (% by Vol.) : 5.5

5.2 Small Fires

Use a dry chemical, CO₂, water spray or AFFF foam

5.3 Large Fires

Use water spray, Fog or AFFF foam. Do not use straight streams. Move containers from fire area if you can do it without risk. Thermal decomposition may include toxic oxides of carbon. Use self-contained breathing apparatus.

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5.4 Fire involving Tanks or Trailer Loads

Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Self-contained breathing apparatus should be worn during fires in confined spaces.

6 ACCIDENTAL RELEASE MEASURES

6.1 Safety Precautions

Eliminate all ignition sources (No smoking, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basement or confined areas. A vapour suppressing foam may be used to reduce vapourous. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

6.2 Major Spill

Dyke far ahead of liquid spill for later disposal. Water spray may reduce vapour; but may not prevent ignition in closed spaces.

6.3 Empty Containers

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

7 HANDLING & STORAGE

7.1 Handling

Handle in accordance with good hygiene and safety procedures. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Since empty containers contain product residue, follow all hazard warnings and precautions even after container is emptied. Keep away from sources of ignition. During all handling operations, both transferring and receiving vessels must be properly grounded.

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7.2 Storage

Store in the closed containers in a cool, dry, well ventilated areas. This product is non-corrosive; it does not therefore call for special storage materials.

Usual materials of construction are suitable for storage. Keep away from sparks, flame and other ignition sources. Store away from all combustible, organic and oxidizable materials.

7.3 Others

- Usual shipping containers: Tank cars, Tank trucks, Drums.
- Type of material: Carbon steel, baked epoxy or phenolic resin coatings, Aluminum.
- Storage / transport pressure: Atmospheric.
- Storage / transport temperature: Ambient.
- Loading / unloading temperature: Ambient.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Exposure Control

- Engineering Controls: Local exhaust is recommended (preferred mechanical) for use of material at elevated temperatures or in enclosed areas.
- Good industrial hygiene should be followed.
- Avoid breathing (heated) vapors. Avoid eye and skin contact.

8.2 Personal Protective Equipment

- Eye: Goggles or face shield with goggles, dependent upon potential exposure.
- Skin: Rubber gloves (or Neoprene); Dependant upon degree of potential exposure, additional personal protective equipment may be required, such as chemical boots and full protective clothing.
- Inhalation: Use an appropriate NIOSH/MSHA approved respirator for exposure to contaminated atmosphere. A NIOSH/MSHA approved self-contained breathing apparatus or air-supplied respirator is recommended if the concentration exceeds the capacity of cartridge respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
- Other Controls: Boots, Eye wash fountain, Safety Shower, Apron, Protective clothing.

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9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: Liquid (organic)
- Appearance: Yellow liquid
- Odor: Characteristic
- pH: Not Applicable.
- Boiling Range: 370 - 420°C (typical)
- Flash Point: >180°C
- Explosive properties: None
- Oxidizing properties: Not Available
- Vapor Pressure mm Hg @ 20°C: < 0.1kPa
- Specific Gravity: 0.866 @ 15°C (water=1)
- Freezing Point -40°C
- Water Solubility: Negligible
- Viscosity: 5 – 10 cps @ 20°C; 21 – 28 cps @ 38°C
- Vapor Density : 8.4 (Air = 1)

10 STABILITY AND REACTIVITY

- Stability: Stable at normal temperatures and pressures
- Conditions of to avoid: heat, flames, sparks and other sources of ignition; incompatibles
- Incompatibility: Incompatible with strong oxidizers.
- Hazardous Polymerization: No dangerous polymerization.

11 TOXICOLOGICAL INFORMATION

Inhalation:

- Acute exposure: Vapors may cause irritation, central nervous system depression, pulmonary edema and possibly hepatic, renal or bone marrow disorders.
- Chronic exposure: No data available.

Skin contact:

- Acute exposure: No data available
- Chronic exposure: May cause de-fatting of the skin and subsequent dermatitis
- Slightly irritating to rabbit

Eye Contact:

- Acute: Direct contact of aromatic hydrocarbons with the eye causes irritation, itching, and a burning sensation.

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- Chronic exposure: No data available
- Slightly irritating to rabbit

Ingestion:

- Acute exposure: Aromatic hydrocarbons may cause central nervous system depression and possible liver and kidney injury.
- Chronic exposure: No data available
- Mutagenicity: Not Mutagenic
- Carcinogenicity : Not Carcinogenic
- Teratogenicity: Not Teratogenic
- Toxicity to reproduction: Not Reprotoxic

12 ECOLOGICAL INFORMATION

12.1 General

- BOD5 and COD: Not available
- Biodegradation: Inherently biodegradable

12.2 Ecotoxicity

Eco-toxicity: Not available

13 DISPOSAL CONSIDERATIONS

Wastes can be incinerated under controlled conditions according to official regulations.

14 TRANSPORTATION INFORMATION

This product is not a dangerous good or hazardous for ground and water transportation.

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15 OTHER INFORMATION

Sulfonate derivatives of HAB are highly biodegradable (97% or greater), according to O.E.C.D.'s official method described on E.E.C. Directive, 82/243.

HAZARD RATING

HAZARD	NFPA	HMIS
Health	1	1
Flammability	1	1
Reactivity	0	0

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