SAFETY DATA SHEET

SASOLAB C11H Detergent Alkylate

SECTION 1  IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name  SASOLAB C11H Detergent Alkylate
Synonyms  Linear Alkylbenzene
Use  Raw material for chemical processes
Company  Sasol Chemicals (USA) LLC
(an affiliate of Sasol Chemicals North America LLC)
Address  12120 Wickchester Lane, Houston, TX 77079
Telephone  CHEMTREC North America Transportation Emergency (24-hr) (800) 424 9300
CHEMTREC World Wide (703) 527-3887
Other Emergencies (24-hr) (337) 494 5142
SDS and Product Information (8:00am-4:30pm CST) (281) 588 3491
Health and Safety Information (7:30am-4:00pm CST) (281) 588 3492
E-mail address  SasolElectronicSDS@us.sasol.com

SECTION 2  HAZARDS IDENTIFICATION

OSHA/GHS Hazards  Aspiration hazard  Category 1

LABEL ELEMENTS

Hazard symbols

Signal word  Danger

Hazard statements  H304  May be fatal if swallowed and enters airways.

Precautionary statements

Response  P301 + P310  IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331  Do NOT induce vomiting.

Storage  P405  Store locked up.

Disposal  P501  Dispose of contents/ container to an approved waste disposal plant.
SECTION 3  COMPOSITION/INFORMATION ON INGREDIENTS

Components
Benzene, C10-13-alkyl derivs.

CAS-No.  Weight percent
67774-74-7  100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4  FIRST AID MEASURES

Eye contact  Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact  Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation  Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

Ingestion  If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5  FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES
Fire/explosion  May be ignited by open flame. NFPA Class IIIB combustible liquid.

Suitable extinguishing media  Water spray or fog, foam, dry chemical, CO2.

Protective equipment and precautions for firefighters  Wear self-contained breathing apparatus and protective suit. Keep containers and surroundings cool with water spray.

SECTION 6  ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up  Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7  HANDLING AND STORAGE

Safe handling advice  Ensure all equipment is electrically grounded before beginning transfer operations.
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Storage/Transport pressure
  Ambient

Load/Unload temperature
  Ambient

SECTION 8  EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES
  Ensure adequate ventilation, especially in confined areas.

PERSONAL PROTECTIVE EQUIPMENT

  Eyes
  Wear as appropriate: Goggles, Face-shield

  Skin
  Wear suitable protective clothing, gloves and eye/face protection.

  Inhalation
  Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES
  Contains no substances with occupational exposure limit values.

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

  Appearance  liquid;
  Colour      colourless
  Form        viscous, liquid
  Odour       odourless

  Odour Threshold  No data available

  Flash point  135 °C, 275 °F; PM;

  Flammability
    Upper explosion limit: approximately 5 % (V)
    Lower explosion limit: approximately 0.4 % (V)

  Boiling point/boiling range  280 - 306 °C, 536 - 583 °F;

  Melting point/range  Pour point: < -55 °C, < -67 °F;
### SECTION 10 STABILITY AND REACTIVITY

**Reactivity**
Stable at normal ambient temperature and pressure.

**Chemical stability**
No decomposition if stored and applied as directed.

**Conditions to avoid**
Stable under recommended storage conditions.

**Hazardous decomposition products**
None.

**Materials to avoid**
Oxidizing agents

**Hazardous polymerisation**
None.
### SECTION 11  TOXICOLOGICAL INFORMATION

**Additional Remarks**
The following effects have been reported in studies with animals exposed by a variety of routes to similar linear alkylbenzenes on a repeated basis: Decreased body weight, food consumption and maternal weight gain; effects on offspring (none at low dose); liver toxicity; increased tumors following lifetime dermal exposure at skin damaging concentrations (skin damage confounds the interpretation of the significance of these effects for human health).

**Acute dermal toxicity**
LD50 Rat: > 2,000 mg/kg; OECD Test Guideline 402 (literature value)

**Acute inhalation toxicity**
Negligible or unlikely exposure pathways

**Acute oral toxicity**
LD50 Rat: > 2,000 mg/kg; Directive 67/548/EEC, Annex V, B.1.

**Skin corrosion/irritation**

<table>
<thead>
<tr>
<th>Animal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>Moderately irritating</td>
</tr>
</tbody>
</table>

**Serious eye damage/eye irritation**

<table>
<thead>
<tr>
<th>Animal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>Not irritating</td>
</tr>
</tbody>
</table>

**Respiratory or skin sensitisation**
Guinea pig: not sensitizing; OECD Test Guideline 406

**Germ cell mutagenicity**

**Genotoxicity in vitro:**
Result: In vitro tests did not show mutagenic effects (literature value)

**Genotoxicity in vivo:**
Result: In vivo tests did not show mutagenic effects (literature value)

**Assessment Mutagenicity:**
Based on available data, the classification criteria are not met.

**Reproductive toxicity**

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat; Oral</td>
<td>OECD Test Guideline 416</td>
</tr>
</tbody>
</table>

**NOAEL (parents):**
- 50 mg/kg

**NOAEL (F1):**
- 50 mg/kg

**NOAEL (F2):**
- 50 mg/kg (literature value)

**Assessment Reproductive toxicity:**
Based on available data, the classification criteria are not met.

**Teratogenicity:**

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat; Oral</td>
<td>OECD Test Guideline 414</td>
</tr>
</tbody>
</table>

**NOAEL (teratogen):**
- 125 mg/kg

**NOAEL (maternal):**
- 125 mg/kg
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Assessment teratogenicity:
Based on available data, the classification criteria are not met.

STOT - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure
Rat: Oral; 28-day; OECD Test Guideline 407
LOAEL: 125 mg/kg
Symptoms: reduced food consumption, reduced body weight gain

Rat: Oral; 127-day; OECD Test Guideline 416
NOAEL: 50 mg/kg
LOAEL: 500 mg/kg
Symptoms: reduced body weight gain

Based on available data, the classification criteria are not met.

Aspiration toxicity
May be fatal if swallowed and enters airways.

Carcinogenicity
Assessment carcinogenicity:
Contains no ingredient listed as a carcinogen

SECTION 12 ECOLOGICAL INFORMATION

Toxicity to fish (Danio rerio (zebra fish)) 14 d; semi-static test; OECD Test Guideline 204
In the range of water solubility not toxic under test conditions.

Toxicity to aquatic invertebrates (Daphnia magna (Water flea)) 48 hours; Directive 67/548/EEC, Annex V, C.2.
In the range of water solubility not toxic under test conditions., (literature value)

Toxicity to algae (Scenedesmus subspicatus) 72 hours
In the range of water solubility not toxic under test conditions., (literature value)

Chronic toxicity to fish No data available

Chronic toxicity to aquatic invertebrates NOEC (Daphnia magna (Water flea)) 21 d
In the range of water solubility not toxic under test conditions.

Biodegradation Readily biodegradable.
(28 d): > 60 %
SASOLAB C11H Detergent Alkylate

Bioaccumulative potential
Lepomis macrochirus (Bluegill sunfish) (96 hours, 0.092 mg/l): BCF: 35;
Does not significantly accumulate in organisms., (literature value)

Mobility in soil
Adsorption/Soil
Koc: 22000; log Koc: 4.34
immobile, (literature value)

Other adverse effects
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code
Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

Disposal methods
Dispose of only in accordance with local, state, and federal regulations.

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, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT not regulated
IATA not regulated
IMDG not regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks No data available

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA Inventory Listing Components

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
SASOLAB C11H Detergent Alkylate

Benzene, C10-13-alkyl derivs. 67774-74-7

SARA 302 Status
Components  CAS-No.  Weight percent
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Classification
Aspiration hazard

SARA 313 Chemical Components  CAS-No.  Weight percent
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US. EPA CERCLA Hazardous Substances (40 CFR 302)
Components  Reportable Quantity  Weight percent
none

INTERNATIONAL REGULATIONS

WHMIS Classification
Aspiration hazard  Category 1

European Union
Classification according to Regulation (EU) 1272/2008.
Aspiration hazard, Category 1
Repeated exposure may cause skin dryness or cracking.

Australia. Inventory of Chemical Substances (AICS)  Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS)  Listed
Japan. ISHL - Inventory of Chemical Substances  Listed
Canada. Domestic Substances List (DSL) Inventory  Listed
Canada. Non-Domestic Substance Listing (NDSL)  Not listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS)  Listed
Korea. Existing Chemicals Inventory (KECI)  Listed
China. Inventory of Existing Chemical Substances (IECSC)  Listed
Mexico. National Inventory of Chemical Substances (INSQ)  Listed
New Zealand. Inventory of Chemical Substances (NZIoC)  Listed
SASOLAB C11H Detergent Alkylate

Switzerland. Inventory of Notified New Substances (CHINV) Listed
Taiwan. National Existing Chemical Inventory (NECI) Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65

Components none

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard/ Instability</th>
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<tbody>
<tr>
<td>HMIS®</td>
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<td>1</td>
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</tr>
<tr>
<td>NFPA</td>
<td>1</td>
<td>1</td>
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