SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product information

Product Name: Spent Caustic
Material: 1037098, 1037097

Company: Chevron Phillips Chemical Company LP
Normal Alpha Olefins (NAO)
10001 Six Pines Drive
The Woodlands, TX 77380

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)

Transport:
North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department: Product Safety and Toxicology Group
E-mail address: SDS@CPChem.com
Website: www.CPChem.com

SECTION 2: Hazards identification

Classification of the substance or mixture
This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Emergency Overview

Danger
Physical state: Liquid  Color: White  Odor: No odor
OSHA Hazards: Corrosive to skin, Corrosive to eyes, Corrosive to Metals

Classification
Corrosive to Metals, Category 1
Skin corrosion, Category 1A
Serious eye damage, Category 1

Labeling
MSDS Number:100000014399
### Spent Caustic

**Version 1.6**

<table>
<thead>
<tr>
<th>Symbol(s)</th>
<th><img src="image" alt="Symbol" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Word</td>
<td>Danger</td>
</tr>
</tbody>
</table>

#### Hazard Statements

- **H290**: May be corrosive to metals.
- **H314**: Causes severe skin burns and eye damage.
- **H318**: Causes serious eye damage.

#### Precautionary Statements

**Prevention**:
- P234  Keep only in original container.
- P264  Wash skin thoroughly after handling.
- P280  Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**:
- P301 + P330 + P331  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P310  IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
- P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P305 + P351 + P338 + P310  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
- P363  Wash contaminated clothing before reuse.
- P390  Absorb spillage to prevent material damage.

**Storage**:
- P405  Store locked up.
- P406  Store in corrosive resistant stainless steel container with a resistant inner liner.

**Disposal**:
- P501  Dispose of contents/ container to an approved waste disposal plant.

### Carcinogenicity:

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**ACGIH**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

### SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>Sodium Hydroxide Liquid</th>
</tr>
</thead>
</table>

**MSDS Number:** 100000014399
Spent Caustic

Version 1.6

Revision Date 2015-10-14

Molecular formula: NaOH, H2O

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>0 - 30</td>
</tr>
<tr>
<td>Aluminium sodium dioxide</td>
<td>1302-42-7</td>
<td>10 - 25</td>
</tr>
<tr>
<td>Carbonic Acid Disodium Salt</td>
<td>497-19-8</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General advice: Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Flash point: > 93 °C (> 200 °F)

Unsuitable extinguishing media: High volume water jet.

Specific hazards during fire fighting: Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in
SECTION 6: Accidental release measures

Personal precautions : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Neutralize with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Handling

Advice on safe handling : Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>US</th>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sodium Hydroxide</td>
<td>ACGIH</td>
<td>C</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z-1-A</td>
<td>C</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Immediately Dangerous to Life or Health Concentrations (IDLH)

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>Immediately Dangerous to Life or Health Concentration Value 10 milligram per cubic meter</td>
<td>1995-03-01</td>
</tr>
</tbody>
</table>

Engineering measures
Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**Personal protective equipment**

**Respiratory protection**: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Dusts and Mists. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection**: The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Eye protection**: Eye wash bottle with pure water. Tightly fitting safety goggles.

**Skin and body protection**: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear as appropriate: Complete head face and neck protection. Rubber apron. Footwear protecting against chemicals.

**Hygiene measures**: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

### SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>No odor</td>
</tr>
</tbody>
</table>

**Safety data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>&gt; 93 °C (&gt; 200 °F)</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>NaOH, H2O</td>
</tr>
<tr>
<td>pH</td>
<td>10 - 14</td>
</tr>
</tbody>
</table>
Spent Caustic

Melting point/range: < 0 °C (< 32 °F)

Boiling point/boiling range: 100 °C (212 °F)

Vapor pressure: No data available

Relative density: 2.13

Density: 1.2 - 1.5 G/ML

SECTION 10: Stability and reactivity

Chemical stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Conditions to avoid: No data available.

Other data: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Spent Caustic

Acute oral toxicity: No data available

Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Spent Caustic

Acute inhalation toxicity: No data available

Spent Caustic

Acute dermal toxicity: No data available

Skin irritation: Extremely corrosive and destructive to tissue.

Eye irritation: Causes severe caustic burns to skin and eyes. May cause irreversible eye damage.

Sensitization: No data available.

Further information: No data available.
## SECTION 12: Ecological information

**Ecotoxicology Assessment**

Additional ecological information: No data available

## SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped. Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

<table>
<thead>
<tr>
<th>Product</th>
<th>Contaminated packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.</td>
<td>Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.</td>
</tr>
</tbody>
</table>

## SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

**US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**

UN1719, CAUSTIC ALKALI LIQUIDS, N.O.S., (SODIUM HYDROXIDE, SODIUM ALUMINATE), 8, II, RQ (SODIUM HYDROXIDE)

**IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)**

UN1719, CAUSTIC ALKALI LIQUID, N.O.S., (SODIUM HYDROXIDE, SODIUM ALUMINATE), 8, II, (> 93 °C)

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**

UN1719, CAUSTIC ALKALI LIQUID, N.O.S., (SODIUM HYDROXIDE, SODIUM ALUMINATE), 8, II

**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**

UN1719, CAUSTIC ALKALI LIQUID, N.O.S., (SODIUM HYDROXIDE, SODIUM ALUMINATE), 8, II, (E)
RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
   UN1719, CAUSTIC ALKALI LIQUID, N.O.S., (SODIUM HYDROXIDE, SODIUM ALUMINATE), 8, II

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
   UN1719, CAUSTIC ALKALI LIQUID, N.O.S., (SODIUM HYDROXIDE, SODIUM ALUMINATE), 8, II

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

SECTION 15: Regulatory information

National legislation

SARA 311/312 Hazards : Acute Health Hazard

CERCLA Reportable Quantity : 3333 lbs
Sodium Hydroxide

SARA 302 Reportable Quantity : This material does not contain any components with a SARA 302 RQ.

SARA 302 Threshold Planning Quantity : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.

SARA 313 Ingredients : 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.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489).

**US State Regulations**

Pennsylvania Right To Know : Sodium Hydroxide - 1310-73-2  
Aluminium sodium dioxide - 1302-42-7

New Jersey Right To Know : Sodium Hydroxide - 1310-73-2

California Prop. 65 Ingredients : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**Notification status**

Europe REACH : Not in compliance with the inventory  
United States of America TSCA : On the inventory, or in compliance with the inventory  
Canada DSL : On the inventory, or in compliance with the inventory  
Australia AICS : On the inventory, or in compliance with the inventory  
New Zealand NZIoC : On the inventory, or in compliance with the inventory  
Japan ENCS : On the inventory, or in compliance with the inventory  
Korea KECI : On the inventory, or in compliance with the inventory  
Philippines PICCS : On the inventory, or in compliance with the inventory  
China IECSC : On the inventory, or in compliance with the inventory

**SECTION 16: Other information**

**NFPA Classification**  
Health Hazard: 3  
Fire Hazard: 1  
Reactivity Hazard: 0
Further information

Legacy SDS Number : 4844

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

### Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>SARAH</td>
<td>Superfund Amendments and Reauthorization Act.</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>IECSCC</td>
<td>Inventory of Existing Chemical Substances in China</td>
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<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
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<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
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<td>Less Than or Equal To</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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</table>