

Safety Data Sheet

Spent Caustic

SECTION 1 IDENTIFICATION

Product Name: Spent Caustic

Synonyms: Aqueous Sodium Cresylate, Spent Cresylate Caustic, Spent Sulfidic Caustic, Spent Phenoic Caustic

SDS #: W2

Product Use: By product, for disposal or recycling

Restrictions on Use: Use only as directed

Manufacturer:

Sinclair Oil Company P.O. Box 30825

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SDS Date of Preparation: March 20, 2015

SECTION 2 HAZARDS IDENTIFICATION

Classification:

| Physical | Health |
|---------------|---|
| Not Hazardous | Acute Toxicity Category 3 (Dermal) |
| | Acute Toxicity Category 3 (Oral, Inhalation) |
| | Skin Corrosion Category 1A |
| | Eye Corrosion Category 1 |
| | Germ Cell Mutagen Category 2 |
| | Specific Target Organ Toxicity Repeat Exposure Category 2 |

Label Elements:

Danger!





Hazard Phrases:

Harmful if swallowed.

Toxic in contact with skin.

Harmful if inhaled.

Causes severe skin burns and eye damage.

Suspected of causing genetic defects.

May cause damage to kidney, liver, skin and nervous system through prolonged or repeated exposure.

Precautionary Phrases:

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe mist, vapors or spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing, eye protection and face protection.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTER or doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER or doctor.

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.

IF exposed or concerned: Get medical attention.

Storage and Disposal

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name | CAS No. | Concentration |
|---------------------------------------|------------|---------------|
| Petroleum Neutralizing Agents, Sodium | 64742-40-1 | 100% |
| Hydroxide | | |
| May contain the following: | | |
| Sodium Hydroxide | 1310-73-2 | 7.5-15% |
| Cresylic Acid | 1319-77-3 | 0-25% |
| Phenol | 108-895-2 | 0-20% |
| Sulfur Compounds | Mixture | 0.5-1.0% |

SECTION 4 EMERGENCY and FIRST AID PROCEDURES

Eye: Immediately flush eyes with plenty of water for at least 30 minutes while holding the eyelids apart. Get immediate medical attention.

Skin: Immediately flush skin with plenty of water for 20 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes).

Ingestion: If conscious, rinse mouth with water. Do NOT induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Inhalation: Immediately remove victim to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: Causes severe eye and skin irritation and burns. Inhalation of mists may cause mucous membrane and respiratory irritation and burns with possible pulmonary edema. Ingestion may be fatal. May cause damage to kidney, liver, skin and nervous system through prolonged or repeated exposure.

May cause genetic defects based on animal data.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is required for all routes of exposures.

SECTION 5 FIRE and EXPLOSION HAZARD DATA

Suitable extinguishing media: Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

Specific hazards arising from the chemical: Hot material may react violently with water. Sodium Hydroxide may attack metals and produce extremely flammable hydrogen gas which can form explosive mixtures with air. Combustion may produce carbon and sodium oxides.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and a NIOSH approved positive pressure self-contained breathing apparatus. Contain water used in firefighting from entering sewers or natural waterways. Runoff from fire control may cause pollution.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Evacuate spill area and keep unprotected personnel away. Prevent contact with eyes, skin and clothing. Ventilate area. Wear appropriate protective clothing. Keep away from heat, flames and high temperatures.

Environmental hazards: Avoid release into the environment. Report spill as required by local and federal regulations.

Methods and materials for containment and cleaning up: Neutralize small spills and residues with dilute acid such as acetic or hydrochloric and collect using an inert absorbent material and place in appropriate containers for disposal. Prevent spill from entering sewers and water courses.

SECTION 7 HANDLING and STORAGE

Precautions for safe handling: Prevent contact with eyes, skin and clothing. Do not breathe vapors or mists. Wear protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated area away from heat and other incompatible materials. Keep container tightly closed. Protect from physical damage.

SECTION 8 EXPOSURE CONTROLS and PERSONAL PROTECTION

Exposure Guidelines:

| INGREDIENTS | EXPOSURE LIMITS |
|------------------|--|
| Sodium Hydroxide | 2 mg/m3 TWA OSHA PEL |
| · | 2 mg/m3 Ceiling ACGIH TLV |
| Creosol | 5 ppm, skin TWA OSHA PEL |
| | 20 mg/m3, skin TWA ACGIH TLV (inhalable fraction |
| | and vapor) |
| Phenol | 5 ppm, skin TWA OSHA PEL |

| | 5 ppm, skin TWA ACGIH TLV |
|------------------|---------------------------|
| Sulfur Compounds | None Established |

Appropriate engineering controls: Use with local exhaust ventilation to maintain exposures below the occupational exposure limits.

Respiratory protection: If exposures are exceeded, a NIOSH approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin protection: Impervious gloves as butyl rubber or neoprene recommended to prevent skin contact. **Eye protection:** Chemical safety goggles and face shield should be worn where splashing is possible.

Other: Impervious coveralls, apron and boots is required to prevent skin contact and contamination of personal clothing. A safety shower and eye wash should be available in the immediate work area.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Milky white liquid.

Odor: Sulfur like odor.

| Odor threshold: Not available | pH: >11 | | |
|--|--|--|--|
| Melting point/Pourpoint: -Not available | Boiling Point: >200° F (>93.3°C) | | |
| Flash point: None | Evaporation rate: Not available | | |
| Flammability (solid, gas): Not applicable | | | |
| Flammable limits: LEL: Not applicable | UEL: Not applicable | | |
| Vapor pressure: Not available | Vapor density: Not available | | |
| Relative density: 1-1.2 | Solubility: Not available | | |
| Partition coefficient: n-ctanol/water: Not available | Auto-ignition temperature: Not available | | |
| Decomposition temperature: Not available | Viscosity: Not available | | |

SECTION 10 STABILITY and REACTIVITY

Reactivity: This product is not expected to be reactive.

Chemical stability: The product is stable, but reacts violently with water and organic materials with evolution of heat.

Possibility of hazardous reactions: Vigorous reactions occur when in contact with incompatible materials.

Conditions to avoid: Keep away from excessive heat.

Incompatible materials: Avoid contact with acids, organic halogens, nitromethane and other nitro compounds, sugars, flammable liquids, most common metals, and many other common materials.

Hazardous decomposition products: Thermal decomposition may yield carbon, nitrogen, sodium and sulfur oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Hazards:

Inhalation: Inhalation of vapors or mists may cause severe irritation and burns of the nose, throat and upper respiratory tract. Prolonged inhalation may cause pulmonary edema and death.

Skin Contact: May cause severe irritation or burns with redness, ulceration, rash and pain.

Eye Contact: May cause severe eye irritation and burns with pain, tearing and blurred vision. Permanent damage may occur.

Ingestion: Ingestion causes severe digestive tract irritation or burns to the mucous membranes, esophagus and stomach with shock and possible perforation and peritonitis. Ingestion may be fatal.

Chronic Effects of Overexposure: Prolonged overexposure to phenol has been shown to cause kidney, liver and central nervous system damage.

Mutagenicity: Phenol has been shown to cause mutagenicity in in vitro mammalian mutagenicity assays.

Reproductive Toxicity: None of the components have been shown to cause adverse reproductive or developmental effects.

Carcinogenicity: None of the components are listed as a carcinogen by IARC, NTP, OSHA or ACGIH.

Acute Toxicity Values: Acute Toxicity Estimate: Oral 660 mg/kg, Dermal 671 mg/kg, Inhalation 2.5 mg/L/4 hr Sodium Hydroxide: No toxicity data available

Cresylic Acid: Oral rat LD50 207 mg/kg, Inhalation rat LC50 >0.71 mg/L/1 hr, Dermal rabbit LD50 >301 mg/kg

Phenol: Oral rat LD50 650 mg/L, Inhalation rat LC50 >0.9 mg/L/8 hr Dermal rabbit LD50 660 mg/kg.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Sodium Hydroxide: 48 hr EC50 Ceriodaphnia sp. 40.4 mg/L

Cresylic Acid 96 hr LC50 Oncorhynchus mykiss 7.4 mg/L, 48 hr EC50 daphnia magna 7.7 mg/L, 48 hr EC50

Desmodesmus subspicatus 21 mg/L

Phenol: 96 hr LC50 Pimephales promelas 24.9 mg/L, 48 he EC50 Ceriodaphnia dubia 3.1 mg/L, 96 he EC50

Pseudokirchnerella subcapitata 61.1 mg/L

Persistence and degradability: Biodegradability is not applicable to inorganic substances such as sodium hydroxide, Cresylic acid and phenol are readily biodegradable.

Bioaccumulative potential: Cresylic acid has an estimated BCF of 1.03-1.3. this suggests bioconcentration in aquatic organisms is low. Phenol is not expected to bioaccumlate.

Mobility in soil: Cresylic acid and phenol are expected to be highly mobile in soil. **Other adverse effects:** Possible harmful effects to aquatic life due to alkalinity.

SECTION 13 DISPOSAL INFORMATION

Waste Disposal Method: Dispose in accordance with all local, state and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

| UN Number | Proper shipping name | Hazard | Packing | Environmental |
|-----------|----------------------|--------|---------|---------------|
| | | Class | Group | Hazard |

| DOT | UN2922 | Corrosive liquid, toxic n.o.s. (Sodium Hydroxide, Cresylic Acid) | 8 (6.1) | PG I | No | |
|------|--------|--|---------|------|----|--|
| TDG | UN2922 | Corrosive liquid, toxic n.o.s. (Sodium Hydroxide, Cresylic Acid) | 8 (6.1) | PG I | No | |
| IMDG | UN2922 | Corrosive liquid, toxic n.o.s. (Sodium Hydroxide, Cresylic Acid) | 8 (6.1) | PG I | No | |
| IATA | UN2922 | Corrosive liquid, toxic n.o.s. (Sodium Hydroxide, Cresylic Acid) | 8 (6.1) | PG I | No | |

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable.

Special precautions: None known.

SECTION 15 REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product has an RQ of 400 lbs (based on the RQ of Cresylic Acid of 100 lbs present at 25% maximum). Releases above the RQ must be reported to the National Response Center. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

EPA SARA 311 Hazard Classification: Acute Health, Chronic Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

 Cresylic Acid
 1319-77-3
 0-25

 Phenol
 108-95-2
 0-20

CALIFORNIA PROPOSITION 65: This product contains chemicals known to the State of California to cause cancer or reproductive toxicity. None

WHMIS CLASSIFICATION: Class D, Division 1B (Toxic Material Causing Immediate and Serious Toxic Effects), Class E (Corrosive)

This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

Canada DSL: All of the components are listed on the Canadian Domestic Substances List.

US EPA Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory.

SECTION 16 OTHER INFORMATION

SDS Revision History: Converted to GHS format – all Sections revised

Date of current revision: March 20, 2015

Date of previous revision: None

National Fire Protection Association (U.S.A)



Health: 3* Flammability : 0 Instability: 1 Specific Hazard:

Disclaimer: This product material safety data sheet provides health and safety information. The product should be used in applications consistent with this product literature. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations.

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