SAFETY DATA SHEET

1. Identification

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>Foam Brite (4178-01, 4178-05, 4178-08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Not available.</td>
</tr>
<tr>
<td>Recommended use</td>
<td>Coil Cleaner / Degreaser</td>
</tr>
<tr>
<td>Recommended restrictions</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
- Company name: Nu-Calgon
- Address: 2611 Schuetz Road, St. Louis, MO 63043, United States
- Telephone: 314-469-7000 / 800-554-5499
- Emergency phone number: 1-800-424-9300 (CHEMTREC)
- E-mail: Not available.
- Supplier: See above.

2. Hazard identification

| Physical hazards | Not classified. |
| Health hazards  | Skin corrosion/irritation Category 1 |
|                | Serious eye damage/eye irritation  Category 1 |
| Environmental hazards | Not classified. |
| WHMIS 2015 defined hazards | Not classified |

Label elements

Signal word: Danger
Hazard statement: Causes severe skin burns and eye damage.

Precautionary statement
Prevention: Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection.
Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: Store locked up.
Disposal: Dispose of container in accordance with local, regional, national and international regulations.

WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC): None known
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC): None known
Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information: None.

3. Composition/Information on ingredients

Mixture
**Chemical name**

Sodium hydroxide

**CAS number**

1310-73-2

**Common name and synonyms**

10-30*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition comments**

*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

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### 4. First-aid measures

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

**Skin contact**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label). Wash contaminated clothing before reuse.

**Eye contact**

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. Specific treatment (see information on this label).

**Ingestion**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

**Most important symptoms/effects, acute and delayed**

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**Indication of immediate medical attention and special treatment needed**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

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### 5. Fire-fighting measures

**Suitable extinguishing media**

Foam. Carbon dioxide. Dry chemical.

**Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**

Firefighters should wear a self-contained breathing apparatus.

**Special protective equipment and precautions for firefighters**

Firefighters should wear full protective clothing including self-contained breathing apparatus.

**Fire-fighting equipment/instructions**

Move containers from fire area if you can do so without risk.

**Specific hazards**

Use standard firefighting procedures and consider the hazards of other involved materials.

**Hazardous combustion products**

May include and are not limited to: Oxides of carbon.

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### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas.

- **Large Spills:** Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

- **Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.
7. Handling and storage

Precautions for safe handling
Use only with adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Keep container tightly closed. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities
Store locked up. Store in a cool, dry place out of direct sunlight. Store in a corrosion resistant container with a resistant inner liner. Store in a closed container away from incompatible materials. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure controls/Personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Canada. Alberta OELs (Occupational Health &amp; Safety Code, Schedule 1, Table 2)</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
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<td>Ceiling</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)</th>
<th>Components</th>
<th>Value</th>
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</thead>
<tbody>
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<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)</th>
<th>Components</th>
<th>Value</th>
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</thead>
<tbody>
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<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
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</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Components</th>
<th>Value</th>
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</thead>
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<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>PEL</td>
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</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Components</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Exposure guidelines
Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH.

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection
   Hand protection  Impervious gloves. Confirm with reputable supplier first.
   Other  Wear appropriate chemical resistant clothing. As required by employer code.
Respiratory protection
   Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
   Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
Thermal hazards  Not applicable.

9. Physical and chemical properties

Appearance  Liquid
Physical state  Liquid.
Form  Liquid
Color  Yellow
Odor  Bland.
Odor threshold  Not available.
PH  12.7 (1% in water)

Melting point/freezing point  32 °F (0 °C)
Initial boiling point and boiling range  212 °F (100 °C)

Pour point  Not available.
Specific gravity  Not available.
Partition coefficient (n-octanol/water)  Not available.
Flash point  Tag Closed Cup None to boiling
Evaporation rate  Equal to water
Flammability (solid, gas)  Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)  Not available
Flammability limit - upper (%)  Not available
Explosive limit - lower (%)  Not available.
Explosive limit - upper (%)  Not available.

Vapor pressure  Not available.
Vapor density  Not available
Relative density  1.24
Solubility(ies)  Complete
Auto-ignition temperature  Not available
Decomposition temperature  Not available.
Viscosity  < 5 cP Water thin

Other information
Density  10.36 lb/gal
Explosive properties  Not explosive.
Oxidizing properties  Not oxidizing.

10. Stability and reactivity

Reactivity  Reacts violently with acids. This product may react with strong oxidizing agents.

Data suggest that Sodium hydroxide is corrosive to several metals (aluminum, zinc and zinc-containing brasses and bronzes, types 1010, 1020, 1075 and 1095 carbon steel, copper, and silicon copper); however, the data are insufficient to classify as Category 1 as per Health Canada (Hazardous Product Assessment)(2020).

Possibility of hazardous reactions
Hazardous polymerization does not occur.
Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Do not mix with other chemicals.

Incompatible materials

Hazardous decomposition products
May include and are not limited to: Oxides of carbon.

11. Toxicological information

Routes of exposure
Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

Ingestion
Causes digestive tract burns. May cause stomach distress, nausea or vomiting.

Inhalation
May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact
Causes severe skin burns.

Eye contact
Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td>Not available</td>
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<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td>Not available</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td>Not available</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes severe skin burns and eye damage.

Exposure minutes
Not available.

Erythema value
Not available.

Oedema value
Not available.

Serious eye damage/eye irritation
Causes serious eye damage.

Corneal opacity value
Not available.

Iris lesion value
Not available.

Conjunctival reddening value
Not available.

Conjunctival oedema value
Not available.

Recover days
Not available.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant
Sodium hydroxide (CAS 1310-73-2) Irritant

Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
This product is not expected to cause skin sensitization.

Mutagenicity
Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity
Non-hazardous by WHMIS/OSHA criteria.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not listed.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Teratogenicity
Non-hazardous by WHMIS/OSHA criteria.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.
Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Components of this product have been identified as having potential environmental concerns. See below

Ecotoxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>34.59 - 47.13 mg/L, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>125 mg/L, 96 hours</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td></td>
<td>No data is available on the degradability of this product.</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td></td>
<td>No data available.</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td></td>
<td>No data available.</td>
</tr>
<tr>
<td>Mobility in general</td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td></td>
<td>No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.</td>
</tr>
</tbody>
</table>

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

Transport of Dangerous Goods (TDG) Proof of Classification Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:
- UN number: UN3266
- Proper shipping name: Corrosive liquid, basic, inorganic, n.o.s.
- Technical name: Sodium hydroxide
- Hazard class: 8
- Packing group: II
- Special provisions: 386, B2, IB2, T11, TP2, TP27
- Packaging non bulk: 202
- Packaging bulk: 242

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:
- UN number: UN3266
- Proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
- Technical name: SODIUM HYDROXIDE
- Hazard class: 8
- Packing group: II
- Special provisions: 16

IATA/ICAO (Air)

Basic shipping requirements:
- UN number: UN3266
- Proper shipping name: Corrosive liquid, basic, inorganic, n.o.s.
- Technical name: Sodium hydroxide
- Hazard class: 8
- Packing group: II
IMDG (Marine Transport)

Basic shipping requirements:
- **UN number**: UN3266
- **Proper shipping name**: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
- **Technical name**: Sodium hydroxide
- **Hazard class**: 8
- **Packing group**: II

DOT

IATA; IMDG; TDG

15. Regulatory information

**Canadian federal regulations**
This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

- Export Control List (CEPA 1999, Schedule 3)
  Not listed.
- Greenhouse Gases
  Not listed.
- Precursor Control Regulations
  Not regulated.
- WHMIS 2015 Exemptions
  Not applicable

**US federal regulations**
This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  Not regulated.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  Sodium hydroxide (CAS 1310-73-2) Listed.
- **SARA 304 Emergency release notification**
  Not regulated.
  Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**
**SARA 302 Extremely hazardous substance**
No

**Classified hazard categories**
- Skin corrosion or irritation
- Serious eye damage or eye irritation

**SARA 313 (TRI reporting)**
Not regulated.

**Other federal regulations**
- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  Not regulated.
US state regulations

US - California Hazardous Substances (Director's): Listed substance
Sodium hydroxide (CAS 1310-73-2) Listed.

Sodium hydroxide (CAS 1310-73-2)

US - Louisiana Spill Reporting: Listed substance
Sodium hydroxide (CAS 1310-73-2) Listed.

US - Minnesota Haz Subs: Listed substance
Sodium hydroxide (CAS 1310-73-2) Listed.

US - Texas Effects Screening Levels: Listed substance
Sodium hydroxide (CAS 1310-73-2) Listed.

US. Massachusetts RTK - Substance List
Sodium hydroxide (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act
Sodium hydroxide (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law
Sodium hydroxide (CAS 1310-73-2)

US. Rhode Island RTK
Sodium hydroxide (CAS 1310-73-2)

US. California Proposition 65
Not Listed.

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
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</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

**LEGEND**

<table>
<thead>
<tr>
<th><strong>HEALTH</strong></th>
<th><strong>/ 3</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>4</td>
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<tr>
<td>Serious</td>
<td>3</td>
</tr>
<tr>
<td>Moderate</td>
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<tr>
<td>Slight</td>
<td>1</td>
</tr>
<tr>
<td>Minimal</td>
<td>0</td>
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</tbody>
</table>

**FLAMMABILITY** | **0**

**PHYSICAL HAZARD** | **0**

**PERSONAL PROTECTION** | **X**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document. The information in the sheet was written based on the best knowledge and experience currently available.

**Issue date**
22-April-2020

**Version #**
02

**Effective date**
22-April-2020

**Prepared by**
Nu-Calgon Technical Service  Phone: (314) 469-7000

**Further information**
Not available.

**Other information**
For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.