Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Sodium Bicarbonate
Other means of identification: None
Recommended use: No Data available
Restrictions on use: None known
Company: Drillchem Drilling Solutions, LLC
PO Box 132107
Spring, TX 77393 USA
Office: (281) 713-8941
Emergency telephone number: (800) 424-9300 (24 Hours) CHEMTREC
Issuing date: 09/12/2018

Section: 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids: Not classified
Skin irritation: Category 3
Eye irritation: Category 2B
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
Specific target organ toxicity - single exposure: Not classified
Aspiration hazard: Not classified
Acute Oral Toxicity: Category 5

GHS Label element
Hazard pictograms: ⚠️

Signal Word: Warning
Hazard Statements: May be harmful if swallowed. Causes skin mild irritation. Causes eye irritation.
Precautionary Statements: Prevention: Observe good industrial hygiene practices.

Response: IF SWALLOWED: USA Immediately call the National POISON CENTER at 800-222-1222. OUT SIDE USA Immediately call poison center or doctor. DO NOT induce vomiting. IF ON SKIN, Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED, Remove to fresh air and keep comfortable for breathing. If not breathing give artificial respiration. DO NOT use mouth to mouth resuscitation without proper protection. IF IN EYES rinse cautiously with water for at least 15 minutes.
SAFETY DATA SHEET

Sodium Bicarbonate

IF ON CLOTHING, Take off contaminated clothing. Stop leaks if safe to do so. See section 6 for proper clean up.

Storage: Store in a well-ventilated place, Keep container tightly closed when not in use.

Disposal: Dispose of content and/ container in accordance with local, regional, national and/or international regulations.

Other hazards: Irritation to the respiratory system.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Names</th>
<th>CAS #.</th>
<th>Concentration%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate</td>
<td>144-55-8</td>
<td>99 - 100%</td>
<td>Baking Soda</td>
</tr>
</tbody>
</table>

Section: 4. FIRST AID MEASURES

In case of eye contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

In case of skin contact: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

If swallowed: Do NOT induce vomiting. Get medical aid immediately.

If inhaled: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult and IF TRAINED, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation without protection.

Protection of first-aiders: No data available.

Notes to physician: The severity of outcome following ingestion may be more related to the time between ingestion and treatment, rather than the amount ingested. Therefore, there is a need for rapid treatment of any ingestion exposure.

Most important symptoms and effects, both acute and delayed: No data available.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide, dry chemical powder or appropriate foam. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable extinguishing media: No data available.
Specific hazards during firefighting: When heated to decomposition Sodium Bicarbonate emits acrid smoke, fumes, and carbon dioxide and sodium oxides.

Special protective equipment for firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Contact with metals may evolve flammable hydrogen gas.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Increase ventilation to area or move container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Before entry, especially into confined areas, check atmosphere with an appropriate monitor.

Environmental precautions: No data available.

Methods and materials for containment and cleaning up: Contain the discharged material. If sweeping of a contaminated area is necessary use a dust suppressant agent. Report spills to local health, safety and environmental authorities, as required.

Section: 7. HANDLING AND STORAGE

Advice on safe handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not breathe dust minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing.

Conditions for safe storage: Store in a cool, dry, well-ventilated area, out of direct sunlight. Keep quantities stored as small as possible. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel.

Suitable material: No data available

Unsuitable material: No data available

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Chemical Names</th>
<th>ACGIH- TLV</th>
<th>OSHA - PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate</td>
<td>5 mg/m3 TWA Respirable fraction</td>
<td>5 mg/m3 TWA Respirable fraction</td>
</tr>
</tbody>
</table>

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.

NOTE: TWA Means "TWA is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded."
Engineering measures : Provide general or local exhaust ventilation systems to maintain airborne concentrations below TLV/PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Personal protective equipment

Eye protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

Hand protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use. Select gloves tested to the ANSI/ISEA 105-2011 Full contact: Nitrile rubber Splash contact: Nitrile rubber

Skin protection : Chemical splash protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : Respiratory protection respirator. Use a type N100 as a backup to engineering controls.

Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid Granules
Colour : White
Odor : None
Flash point : no data available
pH : 9
Odour Threshold : no data available
Melting point/freezing point : no data available
Initial boiling point and boiling range : 3038°F 1670 °C
Evaporation rate : no data available
Flammability (solid, gas) : no data available
Upper explosion limit : no data available
Lower explosion limit : no data available
Vapour pressure : no data available
Relative vapour density : no data available
Relative density : 1.3
Density : no data available
SAFETY DATA SHEET

Sodium Bicarbonate

Water solubility : Soluble
Solubility in other solvents : no data available
Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : no data available
Thermal decomposition temperature : no data available
Viscosity, dynamic : no data available
Viscosity, kinematic : no data available
Molecular weight : no data available
Specific gravity : no data available

Section: 10. STABILITY AND REACTIVITY

Chemical stability : The product is stable and non-reactive under normal conditions of use, storage and transport.
Possibility of hazardous reactions : Violent polymerization occurs when mixed with Methyl Vinyl Ether.
Conditions to avoid : Exposure to moisture may affect product quality.
Incompatible materials : Strong acids, Borane/boron oxides, Zinc, Calcium oxide, Methyl vinyl ether, Calcium chloride is attacked by bromine trifluoride.
Hazardous decomposition products : When heated to decomposition, calcium chloride emits toxic fumes of hydrogen chloride.

Section: 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 oral rat</th>
<th>LC50 Dermal Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate</td>
<td>1000 mg/kg</td>
<td>2630mg/kg</td>
</tr>
</tbody>
</table>

Information on likely routes of exposure : Ingestion, Eye contact, Skin contact

Potential Health Effects

Repeated or prolonged contact with dust may produce chronic eye irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation.

Eyes : Causes severe eye irritation.

Skin : Causes skin irritation.
Ingestion : Harmful if swallowed.

Inhalation : Irritation to the respiratory system.

**Toxicity**

**Product**

Acute oral toxicity : Category 5
Acute inhalation toxicity : No data available
Acute dermal toxicity : No data available
Skin corrosion/irritation : No data available
Serious eye damage/eye irritation : No data available
Respiratory or skin sensitization : No data available
Carcinogenicity : No

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate</td>
<td>Not Listing</td>
<td>Not Listing</td>
<td>Not listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

- Reproductive effects : Not a reproductive hazard
- Germ cell mutagenicity : Not a mutagen
- Teratogenicity : Not harmful the unborn child
- STOT - single exposure : Not classified
- STOT - repeated exposure : Not classified
- Aspiration toxicity : Not an aspiration hazard.
- Signs and Symptoms : Dust may produce irritation of eyes, mouth and respiratory tract. Inhalation of the dust may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Section: 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC50</th>
<th>Endpoint</th>
<th>Time (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate</td>
<td>759 mg/l</td>
<td>Fish</td>
<td>96</td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>590 mg/l</td>
<td>Daphnia</td>
<td>48</td>
</tr>
</tbody>
</table>
Toxicity: Not toxic to aquatic organisms, contain runoff

Persistence and degradability: No data available

Mobility: No data available

Bioaccumulation: No data available

PBT and vPvB assessment: No Data available

Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable 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: DO NOT REUSE EMPTY CONTAINER! Container with residues should be considered to be hazardous wastes.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT):
Not regulated as dangerous goods.

Air transport (IATA):
Not regulated as dangerous goods

Sea transport (IMDG/IMO):
Not regulated as dangerous goods

Section: 15. REGULATORY INFORMATION

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

EPCRA - Emergency Planning and Community Right-to-Know Act: Not listed.

CERCLA Reportable Quantity: Not listed.

SARA 304 Extremely Hazardous Substances Reportable Quantity: Not regulated.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D): Not regulated.

SARA Community Right-to-Know Program: None

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not listed.

Safe Drinking Water Act: Not regulated.

US STATE REGULATION:

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100): Not listed

US. Massachusetts RTK - Substance List: All components of this product are on the Massachusetts Inventory or are exempt from Inventory requirements.

US. New Jersey Worker and Community Right-to-Know Act: All components of this product are on the New Jersey inventory or are exempt from Inventory requirements.

US. Pennsylvania Worker and Community Right-to-Know Law: All components of this product are on the Pennsylvania Inventory or are exempt from Inventory requirements.

US. Rhode Island RTK: Not regulated

US. California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

INTERNATIONAL CHEMICAL CONTROL LAWS:

United States TSCA Inventory: On TSCA Inventory

Canadian Domestic Substances List (DSL): On DSL Inventory

Section: 16. OTHER INFORMATION

Revision Date: 09/12/2018
Version Number : 1.0

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.