

MATERIAL SAFETY DATA SHEET



SODIUM BICARBONATE

Drilling Fluids

1. Product and Company Identification

Material name	SODIUM BICARBONATE
Chemical name	Sodium bicarbonate
Applications	Alkalinity Control
Supplier	Baker Hughes Drilling Fluids 2001 Rankin Rd. Houston, TX 77073 Emergency telephone number 713-439-8900

2. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

3. Hazards Identification

Emergency overview	Product dust may be irritating to eyes, skin and respiratory system.
Potential health effects	
Eyes	Causes eye irritation.
Skin	This product may cause irritation to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
Inhalation	Inhalation of dusts may cause respiratory irritation.
Ingestion	Irritating to mouth, throat, and stomach.

4. First Aid Measures

First aid procedures	
Eye contact	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact	Remove contaminated clothing. Wash off skin with soap and water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.
Ingestion	Immediately give large quantities of water to drink. If ingestion of a large amount does occur, seek medical attention.
Notes to physician	Treat symptomatically.

5. Fire Fighting Measures

Hazardous combustion products	None known.
Extinguishing media	
Suitable extinguishing media	Use extinguishing agent suitable for type of surrounding fire.
Protection of firefighters	
Protective equipment for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

6. Accidental Release Measures

Personal precautions	Wear appropriate protective equipment and clothing during clean-up.
Evacuation procedures	Keep unnecessary personnel away.
Environmental precautions	Do not flush into surface water or sanitary sewer system.
Methods for cleaning up	Avoid dust formation. Do not get water inside containers. Vacuum or sweep up material and place in a disposal container.

7. Handling and Storage

Handling	Handle and open container with care. Use this product with adequate ventilation. Avoid dust formation. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure Controls / Personal Protection

Exposure guidelines	Nuisance Particulates: OSHA PEL 15 mg/m ³ (total dust) - 8-hr. TWA 5 mg/m ³ (respirable dust) - 8-hr. TWA ACGIH TLV 10 mg/m ³ (inhalable) 8-hr TWA 3 mg/m ³ (respirable) 8-hr TWA
Engineering controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection	Wear dust goggles.
Hand protection	Protective gloves.
Skin protection	Use of protective coveralls and long sleeves is recommended. Rubber or plastic boots.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Appearance / Color / Form	Crystalline. White. Solid.
Odor	Odourless.
Clarity	Not available
Odor threshold	Not available
Physical state	Solid
pH	5.4 - 8.6 (5% soln.)
Melting point	1422 °F (772.2 °C)
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	2.159
Relative density	Not available
Solubility	Soluble in water.
Octanol/H₂O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	518 °F (270 °C)
Molecular weight	83.9
Molecular formula	NaHCO ₃

10. Chemical Stability and Reativity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Exposure to moisture. Risk of dust explosion.
Incompatible materials	This product may react with metals, halogens.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Acute effects	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Local effects	Irritating to eyes, respiratory system and skin.
Chronic effects	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

12. Ecological Information

Ecotoxicity This material is not expected to be harmful to aquatic life.

13. Disposal Considerations

Disposal instructions Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
CERCLA/SARA Hazardous Substances - Not applicable.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical No

CERCLA (Superfund) reportable quantity None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Food and Drug Administration (FDA) Total food additive
GRAS food additive

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Korean Inventory of Chemicals (KICS)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

International regulations The product does not need to be labelled in accordance with EC directives or respective national laws.

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

HMIS® ratings Health: 1
Flammability: 0
Physical hazard: 0
Personal protection: E

NFPA ratings

Health: 0
Flammability: 0
Instability: 0

Disclaimer

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.

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