

SAFETY DATA SHEET

Section 1: IDENTIFICATION

Trade Name: Bicarbonate of Soda
Chemical Name: Sodium hydrogencarbonate
Synonyms: Sodium bicarbonate
Molecular Formula: NaHCO_3
Uses of the Substance/Mixture: Drilling Fluid Additive
Manufacturer/Supplier: Bri-Chem Supply Ltd.
27075 Acheson Road
Acheson, AB T7X 6B1
Phone Number: 780-962-9490
Emergency Telephone: CHEMTREC 1-800-424-9300, 24/7

Section 2: HAZARD(S) IDENTIFICATION

Although WHMIS has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

Classification of the Substance or Mixture: Not classified as hazardous product under the legislation above

Label Elements

Hazardous Products Regulations (WHMIS 2015): Not labelled as hazardous product under the regulation above

Other Hazards Which do not Result in Classification: None identified

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Chemical Name: Sodium hydrogencarbonate
WHMIS Hazardous Ingredients and Impurities: No Ingredients are hazardous
Mixture: Not applicable, this product is a substance.

Section 4: FIRST-AID MEASURES

Description of First-Aid Measures

In Case of Inhalation: Move to fresh air. If symptoms persist, call a physician.
In Case of Skin Contact: Wash off with soap and water

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In Case of Eye Contact:	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
In Case of Ingestion:	Rince mouth with water. If symptoms persist, call a physician or Poison Control Center immediately.
Most Important Symptoms and Effects, both Acute and Delayed	
In Case of Inhalation:	No hazards to be specially mentioned
In Case of Skin Contact:	No hazards to be specially mentioned <i>Repeated or prolonged exposure:</i> Contact with dust can cause a mechanical irritation or drying of the skin
In Case of Eye Contact:	Dust contact with eyes can lead to mechanical irritation
In Case of Ingestion:	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Indication of any Immediate Medical Attention and Special Treatment Needed	
Notes to Physician:	When symptoms persist or in all cases of doubt seek medical advice

Section 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable Extinguishing Media: None

Specific hazards arising from the Substance or Mixture

Hazardous Combustion Products: None

Advice for Firefighters

Special Protective Equipment for Firefighters: In the event of fire, wear self-container breathing apparatus. Use personal protective equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Advice for Non-emergency Personnel: Evacuate personnel to safe areas. Avoid dust formation.

Advice for Emergency Responders: Use personal protective equipment. Sweep up to prevent slipping hazard. Prevent further leakage or spillage.

Environmental Precautions: Do not flush into surface water or sanitary sewer system. Prevent any mixture with an acid into the sewer/drain (gas formations).

Methods and Materials for Containment and Cleaning Up: Pick up and transfer to properly labeled containers. Keep in suitable, closed containers for disposal.

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Reference to Other
Sections:

Refer to protective measures listed in Sections 7 & 8.

Section 7: HANDLING AND STORAGE

**Precautions for Safe
Handling:**

Ensure adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep away from incompatible products.

Hygiene Measures:

When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, Including any Incompatibilities

**Technical
Measures/Storage
Conditions:**

Store in original container. Keep in a dry place. Keep in properly labeled containers. Keep container closed. Keep away from: incompatible products.

Packing Material

Suitable Material:

Paper, Polyethylene, Polypropylene, Woven plastic material, Polyethylene.

Unsuitable Material:

No data available

Specific End Use(s):

No data available

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Control Parameters:

Contains no substances with occupational exposure limit values

Exposure Controls

Control Measures

Engineering Measures:

Provide appropriate exhaust ventilation at places where dust is formed

Individual Protection Measures

Respiratory Protection:

Use only respiratory protection that confirms to international/national standards. Use NIOSH approved respiratory protection.

Hand Protection:

Impervious gloves

Eye Protection:

Safety goggles

Skin and Body Protection:

No special protective equipment required

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Hygiene Measures: When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Information on Basic Physical and Chemical Properties

Physical State:	Solid
Form	Crystalline, powder
Color	White
Odour:	Odorless
Odour Threshold:	No data available
Melting Point/Freezing Point:	Melting point/range: Decomposition: Yes
Initial Boiling Point and Boiling Range:	Boiling point/boiling range: Thermal decomposition: Yes
Flammability (solid, gas):	This product is not flammable
Flammability (liquids):	No data available
Flammability / Explosive Limit:	No data available
Flash Point:	Not applicable, inorganic.
Autoignition Temperature:	No data available
Decomposition Temperature:	> 122 °F (> 50 °C)
pH:	8.4 (ca. 8.4 g/l) (77 °F (25 °C)) Water 8.6 (ca. 52 g/l) pKa: 6.3
Viscosity:	Viscosity, dynamic: Not applicable
Solubility	Water Solubility: 69 g/l (32 °F (0 °C)) 93 g/l (68 °F (20 °C)) 165 g/l (140 °F (60 °C)) Solubility in other solvents: Other: soluble

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Partition coefficient: n-octanol/water:	Alcohol: slightly soluble Not applicable, inorganic
Vapor Pressure:	Thermal decomposition
Density:	2.21 kg/dm ³ Bulk Density: 500 – 1,300 kg/m ³
Relative Density:	2.21 - 2.23 (68 °F (20 °C))
Relative Vapor Density:	Not applicable
Particle Characteristics:	No data available
Evaporation Rate (Butylacetate = 1):	No data available
Other Information	
Explosiveness:	Not expected
Oxidizing Properties:	Not expected
Self-Ignition:	The product is not flammable
Molecular Weight:	84.01 g/mol

Section 10: STABILITY AND REACTIVITY

Reactivity:	Incompatible with acids. Decomposes slowly on exposure to water.
Chemical Stability:	Stable under recommended storage conditions
Possibility of Hazardous Reactions:	None
Conditions to Avoid:	Exposure to moisture. To avoid thermal decomposition, do not overheat.
Incompatible Materials:	Acids
Hazardous Decomposition Products:	None

Section 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Acute Oral Toxicity:	LD50 : > 4,000 mg/kg - Rat, male and female Method: according to a standardized method The product has a low acute toxicity Unpublished reports
Acute Inhalation Toxicity:	LC50 - 4.5 h (dust/mist) : > 4.74 mg/l - Rat, male and female Method: according to a standardized method

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	Not classified as hazardous for acute inhalation toxicity according to GHS. Unpublished reports. Dust.	
Acute Dermal Toxicity:	No data available	
Acute Toxicity (Other Routes of Administration):	No data available	
Skin Corrosion/Irritation:	Rabbit Slight Irritation Method: OECD Test Guideline 404 Unpublished Reports	
Serious Eye Damage/Eye Irritation:	Rabbit Slight Irritation Method: OECD Test Guideline 405 Unpublished Reports	
Respiratory or Skin Sensitization:	No data available	
Mutagenicity		
Genotoxicity in Vitro:		
Strain:	Escherichia coli With and Without Metabolic Activation	Negative
Method:	According to a Standardized Method, Published Data.	
	Ames Test with Metabolic Activation	Negative
Method:	Mutagenicity (Salmonella Typhimurium – reverse mutation assay) Published Data.	
Genotoxicity in Vivo:	No data available	
Carcinogenicity:	No data available	
Toxicity for Reproduction and Development		
Toxicity to Reproduction/Fertility:	No data available	
Developmental Toxicity/Teratogenicity:	Rat, female, Oral Teratogenicity NOAEL:> 340mg/kg Method: according to a standardized method Highest dose tested, the product is not considered to be embryotoxic / fetotoxic. Unpublished reports Rabbit, female, Oral Teratogenicity NOAEL:> 330mg/kg Method: according to a standardized method Highest dose tested, the product is not considered to be embryotoxic / fetotoxic. Unpublished reports	

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STOT

STOT – Single Exposure:	Routes of exposure: Oral, Inhalation The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. Internal evaluation
STOT – Repeated Exposure:	No data available
Experience with Human Exposure:	No data available
Aspiration Toxicity:	No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic Compartment

Acute Toxicity to Fish:	LC50 - 96 h : 7,100 mg/L - Lepomis macrochirus (Bluegill sunfish) flow-through test. Analytical monitoring: yes Method: according to a standardized method Unpublished internal reports Not harmful to fish (LC/LL50 > 100 mg/L)
Acute Toxicity to Daphnia and Other Aquatic Invertebrates:	EC50 - 48 h: 4,100 mg/L - Daphnia magna (Water flea) flow-through test. Analytical monitoring: yes Method: according to a standardized method Unpublished internal reports Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L)
Toxicity to Aquatic Plants:	No data available
Toxicity to Microorganisms:	No data available
Chronic Toxicity to Fish:	No data available
Chronic Toxicity to Daphnia and other Aquatic Invertebrates:	NOEC: > 576 mg/L - 21 Days - Daphnia magna (Water flea) Semi-static test Analytical monitoring: no Method: OECD Test Guideline 211 Highest concentration tested Published data No adverse chronic effect observed up to and including the threshold of 1 mg/L.
Persistence and Degradability	
Abiotic Degradation	
Stability in Water:	Product dissociates rapidly to corresponding ions and contact with water.

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Physical and Photo-Chemical Elimination:	No data available
Biodegradation	
Biodegradability:	Not applicable, inorganic substance.
Bioaccumulative Potential	
Partition Coefficient: n-octanol/water:	Not applicable, inorganic substance.
Bioconcentration factor (BCF):	According to the available data on the constituents, not potentially bioaccumulable. Expert judgement.
Mobility in Soil	
Adsorption Potential (Koc):	According to the available data on the constituents, non-significant adsorption. Internal Evaluation.
Known Distribution to environmental compartments:	No data available
Results of PBT and vPvB assessment:	Not applicable, inorganic substance.
Other Adverse Effects	
Ecotoxicity Assessment	
Short-term (Acute) Aquatic Hazard:	Not harmful to aquatic life (LC/LL50, EC/EL50 > 100 mg/L).
Long-term (Chronic) Aquatic Hazard:	No adverse chronic effect observed up to and including the threshold of 1 mg/L

Section 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Product Disposal:	Contact waste disposal services. If recycling is not practicable, dispose of in compliance with local regulations. Dilute with plenty of water. Neutralize with acid. In accordance with local and national regulations.
Advice on Cleaning and Disposal of Packaging:	Where possible, recycling is preferred to disposal or incineration. Clean container with water. Disposal of rinse water in accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

Section 14: TRANSPORT INFORMATION

TDG:	Not regulated
49 CFR:	Not regulated

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NOM: Not regulated

IMDG: Not regulated

IATA: Not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

Section 15: REGULATORY INFORMATION

Notification Status

Inventory Information

Status

United States TSCA Inventory

All substances listed as active on the TSCA inventory.

Canadian Domestic Substances List (DSL)

Listed on Inventory

Australian Inventory of Industrial Chemicals (AIIC)

Listed on Inventory; we have not determined if this product contains substances with regulatory obligations and/or restrictions.

Japan. CSCL - Inventory of Existing and New Chemical Substances

Listed on Inventory

Korea. Korean Existing Chemicals Inventory (KECI)

Listed on Inventory

China. Inventory of Existing Chemical Substances in China (IECSC)

Listed on Inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

Listed on Inventory

Taiwan Chemical Substance Inventory (TCSI)

Listed on Inventory

New Zealand. Inventory of Chemical Substances

All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.

EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)

When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

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National Regulations

Canada. CEPA 1999
Significant New Activity
Notification:

No substances are subject to a Significant New Activity
Notification.

Section 16: OTHER INFORMATION

NFPA (National Fire Protection Association) - Classification

Health: 1 Slight

Flammability: 0 Minimal

Instability or Reactivity: 0 Minimal

Special Notices: None

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health: 1 Slight

Flammability: 0 Minimal

Reactivity: 0 Minimal

PPE: Determined by user, dependent on local conditions.

Key or Legend to Abbreviations and Acronyms Used in the Safety Data Sheet

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

NIOSH: National Institute for Occupational Safety and Health

ADR: European Agreement on International Carriage of Dangerous
Goods by Road

ADN: European Agreement on the International Carriage of
Dangerous Goods by Inland Waterways

RID: European Agreement concerning the International Carriage of
Dangerous Goods by Rail

IATA: International Air Transport Association

ICAO-TI: Technical Specification for Safe Transport of Dangerous
Goods by Air

IMDG: International Maritime Dangerous Goods

TWA: Time weighted average

ATE: Estimated value of acute toxicity

EC: European Community number

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CAS:	Chemical Abstracts Service
LD50:	Substance that causes 50% (half) death in the test animals group (Median Fatal Dose)
LC50:	Substance concentration causing 50% (half) death in the test animals group
EC50:	Effective Concentration of the substance causing the maximum of 50%
PBT:	Persistent, Bioaccumulative and Toxic substance.
vPvB:	Very Persistent and Very Bioaccumulative
SEA:	Classification, labeling, packaging regulation
DNEL:	Derived No Effect Level
PNEC:	Predicted No Effect Concentration
STOT:	Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS

Disclaimer:

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