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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product: Sodium Bicarbonate	**Revision date:** 2026-10-29	**Version:** 1.0	**Brand:** Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Sodium Bicarbonate
Synonyms	Sodium hydrogen carbonate; Baking soda; Bicarbonate of soda
CAS No.	144-55-8
EC No.	205-633-8
Molecular formula	NaHCO3
Molecular weight	84.01 g/mol
Relevant identified uses	pH and alkalinity control agent for drilling fluids; food additive (leavening agent); pharmaceutical raw material; water treatment.
Uses advised against	None
Company	Richest Group Ltd.
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SECTION 2: Hazards identification

GHS Classification	Not classified
Pictogram(s)	None
Signal word	None
Hazard statement(s)	None
Precautionary statement(s)	None

Other hazards	None known.

SECTION 3: Composition/information on ingredients

Component	Sodium bicarbonate
CAS No.	144-55-8
EC No.	205-633-8
Classification	Not classified
Concentration (%)	99.0% - 101.0%

SECTION 4: First aid measures

If inhaled	Remove person to fresh air and keep comfortable for breathing. If breathing is difficult or irritation persists, seek medical attention.
In case of skin contact	Take off contaminated clothing. Wash with soap and plenty of water. If irritation occurs, seek medical advice.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.
If swallowed	Rinse mouth. Do NOT induce vomiting. Seek medical attention if large amounts are swallowed or if you feel unwell.
Most important symptoms and effects	May cause mechanical irritation of eyes, skin and respiratory tract. Ingestion of large amounts may cause gastrointestinal discomfort.
Indication of any immediate medical attention	Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media	The product is non-flammable. Use extinguishing media appropriate to the surrounding fire: water spray, foam, dry powder, carbon dioxide (CO2).
Unsuitable extinguishing media	None.
Special hazards arising from the chemical	Decomposes on heating releasing carbon dioxide; may form sodium carbonate and sodium oxide fumes at high temperature.
Advice for firefighters	Wear self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective	Avoid dust formation and inhalation of dust. Wear appropriate personal

equipment and emergency procedures	protective equipment (see section 8).
Environmental precautions	Prevent further leakage or spillage. Do not let large quantities enter drains or waterways.
Methods and materials for containment and cleaning up	Sweep up and shovel into suitable, dry, closed containers for disposal. Flush residues with water.

SECTION 7: Handling and storage

Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation and contact with eyes. Provide adequate ventilation.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry and well-ventilated place. Keep container tightly closed. Keep away from moisture and acids.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	No occupational exposure limits established
Biological limit values	No biological exposure index (BEI) established.
Appropriate engineering controls	Ensure adequate ventilation. Use local exhaust ventilation where dust is generated.
Eye/face protection	Tightly fitting safety goggles or safety glasses with side-shields.
Skin protection	Handle with impervious gloves. Wash and dry hands after use.
Body protection	Wear appropriate protective clothing.
Respiratory protection	In case of dust formation, wear a suitable particulate respirator.
Thermal hazards	No specific thermal hazards under normal conditions of use.

SECTION 9: Physical and chemical properties

Physical state	White crystalline powder
Colour	White
Odour	Odourless
Melting point / freezing point	Decomposes at approx. 270 °C (starts to release CO2 above 50 °C)
Boiling point or initial boiling point and boiling range	Not applicable (decomposes)
Flammability	Non-flammable

Lower and upper explosion limit / flammability limit	Not applicable (non-flammable)
Flash point	Not applicable
Auto-ignition temperature	Not applicable (non-combustible)
Decomposition temperature	Begins to decompose above 50 °C with release of CO2
pH	8.2 - 8.5 (10 g/L aqueous solution)
Kinematic viscosity	Not applicable (solid)
Solubility	96 g/L in water (20 °C); practically insoluble in alcohol
Partition coefficient n-octanol/water	Not applicable (inorganic substance)
Vapour pressure	Negligible at 20 °C (inorganic solid)
Density and/or relative density	2.16 - 2.22 g/cm3 (20 °C)
Relative vapour density	Not applicable (solid)
Particle characteristics	No data available

SECTION 10: Stability and reactivity

Reactivity	Reacts exothermically with acids generating carbon dioxide; stable in dry air but slowly decomposes in moist air; decomposes slowly in water (accelerated by agitation)
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	The solution in water is a weak base. Reacts with acids, sodium-potassium alloy, some metals and ammonium compounds producing heat and carbon dioxide. Decomposes on heating above 50 °C producing sodium oxides, carbon dioxide, water and irritating fumes. (ICSC 1044)
Conditions to avoid	Heat, moisture and contact with acids.
Incompatible materials	Strong acids.
Hazardous decomposition products	Carbon dioxide, sodium carbonate.

SECTION 11: Toxicological information

Acute toxicity - Oral / Inhalation / Dermal	LD50 Oral - Rat - 4,220 mg/kg
Skin corrosion/irritation	Not irritating to skin (not classified)
Serious eye damage/irritation	Dust may cause mild mechanical irritation (not classified)

Respiratory or skin sensitization	No sensitizing effects known
Germ cell mutagenicity	No mutagenic effects known (Ames test: negative)
Carcinogenicity	Not identified as a carcinogen by IARC, NTP, ACGIH or OSHA
Reproductive toxicity	Not classified (based on available data)
STOT - single exposure	Dust may cause mild respiratory irritation
STOT - repeated exposure	Not classified (based on available data)
Aspiration hazard	Not classified (based on available data)

SECTION 12: Ecological information

Toxicity to fish / daphnia / algae	LC50 - Oncorhynchus mykiss (rainbow trout) - 8,250 mg/l - 96 h; EC50 - Daphnia magna - 2,350 mg/l - 48 h
Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances
Bioaccumulative potential	Bioaccumulation is not expected
Mobility in soil	Expected to be mobile in the aquatic environment (water solubility 96 g/L)
Other adverse effects	Large amounts released into waters may affect the pH of aquatic systems.

SECTION 13: Disposal considerations

Product disposal methods	Dispose of contents in accordance with local, regional and national regulations. Offer surplus and non-recyclable product to a licensed disposal company.
Contaminated packaging	Dispose of as unused product or in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards (Marine pollutant)	No
Special precautions for user	No special precautions required during transport.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	EINECS: Listed; TSCA (USA): Listed; IECSC (China): Listed; DSL (Canada): Listed; AICS (Australia): Listed.

SECTION 16: Other information

Full text of H-Statements	None
Revision date	2026-10-29
Version	1.0

Abbreviations and acronyms: CAS: Chemical Abstracts Service; EC: European Commission; EINECS: European Inventory of Existing Commercial Chemical Substances; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; RID: Regulation concerning the International Carriage of Dangerous Goods by Rail; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; TWA: Time Weighted Average; STEL: Short Term Exposure Limit; LD50: Lethal Dose 50%; LC50: Lethal Concentration 50%; EC50: Effective Concentration 50%; PBT: Persistent, Bioaccumulative and Toxic; vPvB: very Persistent and very Bioaccumulative; SDS: Safety Data Sheet.

References: ECHA - European Chemicals Agency, https://echa.europa.eu/; IPCS - International Chemical Safety Cards (ICSC), http://www.ilo.org/; HSDB - Hazardous Substances Data Bank; eChemPortal - OECD Global Portal to Information on Chemical Substances; ERG - Emergency Response Guidebook by U.S. DOT.

Disclaimer: The information in this SDS is only applicable to the specified product and is provided in good faith. It is based on the knowledge available to Richest Group Ltd. at the date of issue and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not constitute any guarantee of the properties of the product. Richest Group Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.