



Material Safety Datasheet

SODIUM BICARBONATE

1. DESCRIPTION

Trade Name: SODIUM BICARBONATE

Chemical Class: Mineral

Chemical Name: Sodium Bicarbonate

Application: pyrotechnics, mild disinfectant, neutralization of acids, fire extinguisher, odor control, agriculture, cleaning agent and drilling fluids industry

Supplier: TEAM Chemicals

Telephone: +44 (0)207 408 7700 - +98 912 3717539

Address: No. 43, Souri St., 43 Ashrafi Esfahani Expressway

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients

| Name | CAS RN | INT HAZ | % |
|--------------------|--------|---------|-----|
| sodium bicarbonate | - | - | >95 |

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Not considered a dangerous substance according to directive 1999/45/EC and its amendments

Potential Acute Health Effects:

SWALLOWED

Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).

EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterized by tearing or conjunctival redness.

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models).



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INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).

Potential Chronic Health Effects:

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts.

Chronic dust inhalation has been associated with lung disease. (Source: NIOSHTIC). Symptoms are those of nodular fibrosis and respiratory impairment is characterized by obstruction and restriction of lung function.

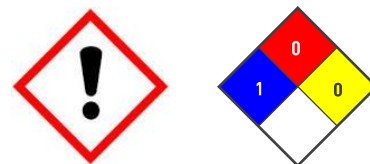
(Source: Occupational Diseases) Clays may contain a significant level of respirable crystalline silicas.

Irritant Yes **Flammable** No

Carcinogenic No **Oxidant** No

Explosive No **Environmental Hazard** No

Corrosive No **(Risk-Phrases)** - **(Safety-Phrases)** -



4. FIRST AID MEASURES

Eye Contact:

- If this product comes in contact with the eyes:
Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Skin Contact:

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

Inhalation:

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

Ingestion:

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor



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5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA · There is no restriction on the type of extinguisher which may be used.

FIRE FIGHTING Alert Fire Brigade and tell them location and nature of hazard.

- Wear breathing apparatus plus protective gloves for fire only.
- May be washed to drain with large quantities of water.
- Use firefighting procedures suitable for surrounding area.
- Use water delivered as a fine spray to control the fire and cool adjacent area.
- DO NOT approach containers suspected to be hot.

FIRE/EXPLOSION HAZARD Product is not combustible.

FIRE INCOMPATIBILITY No known incompatibility with normal range of industrial materials.

PERSONAL PROTECTION

Glasses: Safety Glasses.

Gloves: PVC chemical resistant type. PE/EVAL/PE Gloves.

Respirator: Particulate

6. ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container.

7. HANDLING AND STORAGE

HANDLING Precautions: Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as acids.

Storage Precautions: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS

Not available. Refer to individual constituents

PERSONAL PROTECTION

RESPIRATOR A self-contained breathing apparatus should be used to avoid inhalation of the product.

EYE Safety glasses with side shields. / Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.

HAND/FEET Impervious gloves. / PVC gloves. / Rubber gloves. / Safety footwear.

OTHER Impervious gloves. / PVC gloves. / Rubber gloves. / Safety footwear.

ENGINEERING CONTROLS

Use in a well-ventilated area. General exhaust is adequate under normal operating conditions. If exposure to workplace dust is not controlled, respiratory protection is required; wear SAA approved dust respirator.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical State and Appearance: granular powder

Color: White

Odor: Odorless

pH: 8-8.5

Boiling Point: Not applicable

Melting/Freezing Point: Not applicable

Specific Gravity: 2.2

Solubility (Water): Soluble in cold water. Slightly soluble in alcohol.

Purity: Minimum 95%

10. STABILITY & REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Incompatible materials, Moisture. Stable in dry air, but slowly decomposes in moist air.

Materials to Avoid: Reactive with acids.

Special Remarks on Reactivity: Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy.

Special Remarks on Corrosivity: Not available.



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11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 3360 mg/kg [Mouse].

Chronic Effects on Humans: Not available.

Special Remarks on Chronic Effects on Humans: Sodium Bicarbonate as produced genetic effects in rats (unscheduled DNA synthesis). However, no effects have been found in humans.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause mild skin irritation. Eyes: May cause mild eye irritation. Inhalation: May cause respiratory tract irritation. Symptoms may include coughing and sneezing. Ingestion: Symptoms of overexposure to Sodium Bicarbonate include thirst, abdominal pain, gastroenteritis, and inflammation of the digestive tract. Chronic Potential Health Effects: Skin: Repeated or prolonged skin contact may cause irritation, drying or cracking of the skin. Ingestion and Inhalation: Chronic toxicity usually occurs within 4 to 10 days following ingestion of very large amounts. Repeated or prolonged ingestion or inhalation of large amounts may cause metabolic abnormalities, and sodium retention. Metabolic abnormalities such as acidosis, hypernatremia, hypochloremia, alkalosis, hypocalcemia, or sodium retention may affect the blood, kidneys, respiration (cyanosis, apnea secondary to metabolic acidosis or pulmonary edema), and cardiovascular system (tachycardia, hypotension). Severe toxicity may also affect behavior/central nervous system/nervous system. Neurological changes may result from metabolic abnormalities.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Contact TEAM Environmental Affairs for ecological data.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

13. DISPOSAL CONSIDERATION

WASTE MANAGEMENT: Not Determined

DISPOSAL METHODS: Recycle wherever possible. Consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorized landfill. Recycle containers if possible, or dispose of in an authorized landfill. According to the European Waste Catalogue, Waste Codes are not product specific but application specific. Waste Codes should be assigned by the User based on the application in which the product is used..



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14. TRANSPORT INFORMATION

Labels Required:**HAZCHEM:** None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:ADR, IATA, IMDG

15. REGULATORY INFORMATION

RISK None under normal operating conditions.**REGULATIONS** This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 76/769/EEC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC, as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002
- COSHH Essentials
- The Management of Health and Safety at Work Regulations 1999

16. ADDITIONAL INFORMATION

Yearly Revised Primary MSDS

Update in Toxicological Information

Update in Ecological Information

This MSDS summaries to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. TEAM cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.