# MATERIAL SAFETY DATA SHEET

## Sodium Bicarbonate

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

| Particular | Details |
|---|---|
| Product Name | Sodium bicarbonate |
| Catalog Codes | SLS3241, SLS2446, SLS3868 |
| CAS# | 144-55-8 |
| RTECS | VZ0950000 |
| TSCA | TSCA 8(b) inventory: Sodium bicarbonate |
| CI# | Not available |
| Synonym | Baking Soda; Bicarbonate of soda; Sodium acid carbonate; Monosodium carbonate; Sodium hydrogen carbonate; Carbonic acid monosodium salt |
| Chemical Name | Sodium Bicarbonate |
| Chemical Formula | $NaHCO_3$ |

**Contact Information**

| Particular | Details |
|---|---|
| Company Name | COSMO CHEMISTRY |
| Address | Office No. 713, Millennium Business Hub,<br>Sarthana Jakatnaka, Varachha Main Road,<br>Surat, Gujarat, India – 395006 |
| Telephone Number | +91 979797 7958 |
| Email | info@cosmochemistry.com |

### SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

**Composition**

| Name | CAS # | % by Weight |
|---|---|---|
| Sodium bicarbonate | 144-55-8 | 100 |

**Toxicological Data on Ingredients**

Not applicable.

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**SECTION 3: HAZARDS IDENTIFICATION**

**Potential Acute Health Effects**

Slightly hazardous in case of:

- Skin contact (irritant)
- Eye contact (irritant)
- Ingestion
- Inhalation

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**Potential Chronic Health Effects**

| Parameter | Information |
|---|---|
| CARCINOGENIC EFFECTS | Not available |
| MUTAGENIC EFFECTS | Mutagenic for bacteria and/or yeast |
| TERATOGENIC EFFECTS | Not available |
| DEVELOPMENTAL TOXICITY | Not available |

Repeated or prolonged exposure is not known to aggravate medical condition.

**SECTION 4: FIRST AID MEASURES**

**Eye Contact**

- Check for and remove any contact lenses.
- In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
- Cold water may be used.
- Get medical attention if irritation occurs.

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**Skin Contact**

- Wash with soap and water.
- Cover the irritated skin with an emollient.
- Get medical attention if irritation develops.

- Cold water may be used.

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**Serious Skin Contact**

Not available.

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**Inhalation**

- If inhaled, remove to fresh air.
- If not breathing, give artificial respiration.
- If breathing is difficult, give oxygen.
- Get medical attention.

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**Serious Inhalation**

Not available.

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**Ingestion**

- Do NOT induce vomiting unless directed to do so by medical personnel.
- Never give anything by mouth to an unconscious person.
- Loosen tight clothing such as a collar, tie, belt or waistband.
- Get medical attention if symptoms appear.

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**Serious Ingestion**

Not available.

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**SECTION 5: FIRE AND EXPLOSION DATA**

| Parameter | Details |
|---|---|
| Flammability of the Product | Non-flammable |
| Auto-Ignition Temperature | Not applicable |
| Flash Points | Not applicable |
| Flammable Limits | Not applicable |
| Products of Combustion | Not available |

**Fire Hazards in Presence of Various Substances**

Not applicable.

**Explosion Hazards in Presence of Various Substances**

- Risks of explosion of the product in presence of mechanical impact: **Not available.**
- Risks of explosion of the product in presence of static discharge: **Not available.**

**Fire Fighting Media and Instructions**

Not applicable.

**Special Remarks on Fire Hazards**

When heated to decomposition it emits acrid smoke and irritating fumes.

**Special Remarks on Explosion Hazards**

Not available.

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**SECTION 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.

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**Large Spill**

- Use a shovel to put the material into a convenient waste disposal container.
- Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**SECTION 7: HANDLING AND STORAGE**

**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**

- Keep container tightly closed.
- Keep container in a cool, well-ventilated area.

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**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls**

- Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
- If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**

- Safety glasses.
- Lab coat.
- Dust respirator.
- Be sure to use an approved/certified respirator or equivalent.
- Gloves.

**Personal Protection in Case of a Large Spill**

- Splash goggles.
- Full suit.
- Dust respirator.
- Boots.
- Gloves.
- A self contained breathing apparatus should be used to avoid inhalation of the product.
- Suggested protective clothing might not be sufficient; consult a specialist **BEFORE** handling this product.

**Exposure Limits**

Not available.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

| Property | Specification |
|---|---|
| Physical State and Appearance | Solid |
| Odor | Odorless |
| Taste | Saline, Alkaline |
| Molecular Weight | 84.01 g/mole |
| Color | White |
| pH (1% soln/water) | Not available |
| Boiling Point | Not available |

| Property | Specification |
|---|---|
| Melting Point | Not available |
| Critical Temperature | Not available |
| Specific Gravity | 2.159 (Water = 1) |
| Vapor Pressure | Not applicable |
| Vapor Density | Not available |
| Volatility | Not available |
| Odor Threshold | Not available |
| Water/Oil Dist. Coeff. | Not available |
| Ionicity (in Water) | Not available |
| Dispersion Properties | See solubility in water |

**Solubility**

- Soluble in cold water.
- Slightly soluble in alcohol.

**Solubility in Water**

| Temperature (°C) | Solubility (g/100 solution) |
|---|---|
| 0 | 6.4 |
| 10 | 7.6 |
| 20 | 8.7 |
| 30 | 10.0 |
| 40 | 11.3 |
| 50 | 12.7 |
| 60 | 14.2 |
| 80 | 16.5 |
| 100 | 19.1 |

**Solubility in Water**

| Temperature (°C) | Solubility (g/100 g water) |
|---|---|
| 0 | 6.9 |

| Temperature (°C) | Solubility (g/100 g water) |
|---|---|
| 10 | 8.2 |
| 20 | 9.6 |
| 30 | 11.1 |
| 40 | 12.7 |
| 50 | 14.5 |
| 60 | 16.5 |
| 80 | 19.7 |
| 100 | 23.6 |