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MATERIAL SAFETY DATA SHEET

SODIUM BICARBONATE

1. Product Identification

Product Name: Sodium Bicarbonate
Chemical Name: Sodium Bicarbonate
Chemical Formula: NaHCO₃
Synonyms: Sodium Hydrogen carbonates; sodium acid carbonate; baking soda; bicarbonate of soda.
CAS No.: 144-55-8
Molecular Weight: 84.01

2. Composition/ Information on Ingredients

| Ingredient | CAS No. | Percent | Hazardous |
|--------------------|----------|-----------|-----------|
| Sodium Bicarbonate | 144-55-8 | 99 - 100% | No |

3. Hazards Identification

Fire: Not considered to be a fire hazard.
Explosion: Not considered to be an explosion hazard.

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 1 – Slight
Flammability Rating: 1 – Slight
Reactivity Rating: 1 – Slight
Contact Rating: 1 – Slight
Lab Protective Equip: GOGGLES, LAB COAT
Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation: High concentrations of dust may cause coughing and sneezing.
Ingestion: Extremely large oral doses may cause gastrointestinal disturbances.
Skin Contact: No adverse effects, expected.
Eye Contact: Contact may cause mild irritation, redness, and pain.
Chronic Exposure: No information found.
Aggravation of Pre-existing Conditions: No information found.

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4. First Aid Measures
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Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion: Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.
Skin Contact: Not expected to require first aid measures.
Eye Contact: Wash thoroughly with running water. Get medical advice if irritation develops.

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5. Fire fighting Measures
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Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.
Special Information: Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

7. Handling and Storage

Keep in a well closed container stored under cold to warm conditions, 2 to 40 C, (36 to 104F). Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warning and precautions listed for the product.

8. Exposure Controls/ Personal Protection

Ventilation System:

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

| | |
|-------------------------------------|------------------------------|
| Appearance | White crystalline powder. |
| Odour | Odorless. |
| Boiling Point | Not applicable. |
| Melting Point | 60C (140F) |
| Vapor Pressure | No information found. |
| Density | No information found. |
| Solubility | 7.8g/ 100g water @ 18C (64F) |
| pH | 8.3 (0.1 molar @ 25C (77F)) |
| Vapor Density (Air=1) | No information found. |
| Evaporation Rate (BuAc=1) | No information found. |
| % Volatiles by volume @ 21°C (70°F) | 0 |
| Flash point | No information found. |
| Autoignition temperature | No information found. |
| Flammable limit in air % by volume | No information found. |

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Gaseous carbon dioxide.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy.

Conditions to Avoid:

Heat, moisture, incompatibles.

11. Toxicological Information

Toxicological Data:

Investigated as a mutagen, reproductive effector. Oral rat LD50: 4220 mg/kg. Irritation data: human, skin, 30mg/ 3D-I mild, rabbit, eye, 100 mg/30S, mild.

| Ingredient | -----Cancer Lists----- | | IARC Category |
|-------------------------------|------------------------|---|---------------|
| | Known | -----NTP Carcinogen----- Anticipated | |
| Sodium Bicarbonate (144-55-8) | No | No | None |

Air borne Exposure Limits:

None established.

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

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13. Disposal Considerations

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Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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14. Transport Information

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Not regulated.

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15. Other Information

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This substance is NOT controlled as a Hazardous Substance under the Environmental Pollution Control Act, EPC (HS) Regulations of the Pollution Control Department of National Environment Agency.

NFPA Ratings: Health: **1** Flammability: **0** reactivity: **0**

This material safety data sheet and the information it contains is offer to you in a good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believed that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in the data sheet may not be adequate for all individuals and /or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be constructed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is either made express or implied.
