Section 1. Chemical identification

Name: Sodium hydrogen carbonate crystalline

Section 2. Composition/information on ingredients

CAS #:144-55-8 **EINECS No: 205-633-8** **MF: $NaHCO_3$**

Synonyms

Sodium bicarbonate; baking soda; bicarbonate of sodium; carbonic acid monsodium salt; monosodium carbonate; soda mint; sodium hydrogen carbonate; sodium acid carbonate.

Section 3. Hazards identification

Label precautionary statements

Data not available.

Section 4. First aid measures

In case of eye contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers, and seek medical advice.

In case of skin contact, immediately flush skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

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

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

Section 5. Fire fighting measures

Non-flammable

Extinguishing media

Use water spray, carbon dioxide, dry chemical powder or appropriate foam for surrounding conditions.

Special fire fighting procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards

- Emits toxic fumes under fire conditions.
- When heated to decomposition it emits toxic fumes of Na_2O, carbon dioxide and carbon monoxide.

Section 6. Accidental release measures

- Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
- Sweep up, place in a bag and hold for waste disposal.
- Avoid raising dust.
- Ventilate area and wash spill site after material pickup is complete.

Section 7. Handling and storage

Store in **GREY** area.
Refer to Section 8.

Section 8. Exposure controls/personal protection

- Chemical safety goggles.
- Compatible chemical-resistant gloves.
- Mechanical exhaust required.
- Safety shower and eye bath.
- Wear approved dust mask EN 149 in non-ventilated areas or for exposure above the OEL
- Avoid contact with eyes, skin and clothing.
- Wash thoroughly after handling.
- Keep tightly closed.
- Store in a cool dry place.


Goggles


Gloves


Respirator


Protective clothing


Wash hands

Section 9. Physical and chemical properties

Appearance and odour
White, monoclinic, crystalline powder.

Physical properties
Specific gravity: 2.159

Section 10. Stability and reactivity

Stability
Stable.

Incompatibilities
- Strong oxidizing agents.
- Strong acids.
- Sensitive to moisture.

Hazardous combustion or decomposition products
Toxic fumes of: carbon monoxide, carbon dioxide

Section 11. Toxicological information

Acute effects
- May be harmful by inhalation, ingestion, or skin absorption.
- May cause irritation.

Exposure to large amounts can cause:
- Gastrointestinal disturbances and
- Alkalosis, an abnormal condition of increased alkalinity of the blood and tissues.
- Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material.

Toxicity data
orl-rat LD_{50}: 4220 mg/kg

Target organ data
- Lungs, thorax or respiration (other changes)
- Gastrointestinal (nausea or vomiting)
- Kidney, ureter, bladder (urine volume increased)
- Specific developmental abnormalities (other developmental abnormalities)
- Nutritional and gross metabolic (changes in: Na) (changes in: K) (changes in: metabolic acidosis).

Safety profile:

Low toxicity by ingestion an experimental teratogen. A nuisance dust. Human systemic effects: changes in potassium levels, increased urine volume, metabolic acidosis, nausea or vomiting, respiratory changes, sodium level changes.

Section 12. Ecological information

Data not yet available.

Section 13. Disposal considerations

- For small quantities: cautiously add to a large stirred excess of water. Adjust the pH to neutral, separate any insoluble solids or liquids and package them for hazardous-waste disposal. Flush the aqueous solution down the drain with plenty of water. The hydrolysis and neurtaliszation reactions may generate heat and fumes which can be controlled by the rate of addition.
- Observe all Irish, EU and local environmental regulations.

Section 14. Transport information

Contact chemical supplier for transportation information.

Section 15. Regulatory information

European information.

Section 16. Other information

This MSDS has been prepared in DkIT and is designed for Irish Second Level School Science Laboratories use only where quantities handled are less than 50g. The above information is believed to be correct but does not claim to be all inclusive and shall be used only as a guide. Every effort has been made to ensure that this information provided conforms with the latest available data. DkIT, the Department of Education & Science, Limerick Education Centre, Sigma, Aldrich, Fluka, Dr. Dunlevy or Ms. F. Dunlevy shall not be held liable for any information errors in this MSDS or for any damage resulting from handling or from contact with the above product.

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REFERENCES

Sigma Aldrich Fluka MSDS CD-ROM, Sax CD-ROM, MSDS on Internet