SAFETY DATA SHEET
(according to Directive 2001/58/EC)

BICAR ®

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance or preparation

Product name	:	BICAR ®
Chemical name	:	Sodium hydrogencarbonate
Synonym(s)	:	Sodium bicarbonate
Formula:	:	NaHCO3
Molecular Weight	:	84.02
EC Number (EINECS)	:	205-633-8

1.2. Use of the substance/preparation

Recommended uses :

- Animal feed
- Pharmaceuticals
- Purifying flue gas
- Chemical industry

1.3. Company/undertaking identification

Address : SOLVAY CHEMICALS INTERNATIONAL S.A.
RUE DU PRINCE ALBERT, 44
B- 1050 BRUXELLES

Tel. : +3225096111

Fax : +3225096624

1.4. Emergency telephone

2. COMPOSITION/INFORMATION ON INGREDIENTS

Sodium bicarbonate

CAS Number	:	144-55-8
EC Number (EINECS)	:	205-633-8

3. HAZARDS IDENTIFICATION

- Substance non classified according to Directive 67/548/EEC.

4. FIRST-AID MEASURES

4.1. Inhalation

- Remove the subject from dusty environment and let him blow his nose.

4.2. Eyes contact

- Flush eyes with running water for several minutes, while keeping the eyelids wide open.
- Consult with an ophthalmologist in case of persistent pain.

4.3. Skin contact

- Negligible

4.4. Ingestion

General recommendations

- Negligible

If the subject is completely conscious:

- Rinse mouth with fresh water.

If the subject is unconscious:

- Not applicable

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- In case of fire in close proximity, all means of extinguishing are acceptable (subject to section below).

5.2. Unsuitable extinguishing media

- No restriction.

5.3. Special exposure hazards

- Non-combustible

5.4. Protective measures in case of intervention

- The product does not require any special precautions.

5.5. Other precautions

- Negligible

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Follow the protective measures given in section 8.

6.2. Environmental precautions

- Prevent discharges into the environment (sewers, rivers, soils,...).
- Prevent any mixture with an acid into the sewer/drain (gas formations).

6.3. Methods for cleaning up

- Collect the product with suitable means avoiding dust formation.
- Place everything into a closed, labelled container compatible with the product.
- For disposal methods, refer to section 13.
- Clean the area with large quantities of water.

7. HANDLING AND STORAGE

7.1. Handling

- Keep away from reactive products (see section 10).

7.2. Storage

- Keep away from reactive products (see section 10).

7.3. Specific use(s)

- For any particulary use, please contact the supplier.

7.4. Packaging

- Paper + PE.
- PE

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limit values

Sodium bicarbonate
TLV (ACGIH-USA)
Result: Negligible

8.2. Exposure controls

- Premises ventilation.
- Provide local ventilation suitable for the emission risk.

8.2.1. Occupational exposure controls

8.2.1.1. Respiratory protection

- In case of dust clouds/fog/fumes, dust mask type P1.

8.2.1.2. Hand protection

- Protective gloves - for frequent or prolonged operations:

8.2.1.3. Eye protection

- Dust proof goggles, if dusty.

8.2.1.4. Skin protection

- Negligible

8.2.1.5. Other precautions

- Negligible

8.2.2. Environmental exposure controls

- Respect local/federal and national regulations for aqueous emissions (see section 15).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance	:	crystalline powder
Color/Colour	:	white
Odor/Odour	:	odorless/odourless

9.2. Important health, safety and environmental information

pH	:	8.6 *Concentration*: 5 %
Boiling point	:	Not applicable (Decomposition)
Flash point	:	Not applicable
Flammability	:	Non-flammable
Explosive properties	:	Not explosive
Oxidising properties	:	Non oxidizer
Vapor/vapour pressure	:	Not applicable
Density	:	*Specific gravity*: 2.22 *Bulk density*: from 0,5 - 1,2 kg/dm3
Solubility	:	Water

		96 g/l *Temperature*: 20 °C
	:	Another
	:	Very slightly soluble in
	:	Alcohol
Partition coefficient: n-octanol/water	:	Not applicable
Viscosity	:	1.2 mPa.s
Vapor/vapour density (air=1)	:	Not applicable

9.3. Other information

Melting point/range	:	Not applicable (Decomposition)
Auto-flammability	:	Non-flammable
Decomposition temperature	:	> 60 °C

10. STABILITY AND REACTIVITY

10.1. Conditions to avoid

- Heating the product to its decomposition temperature (see section 9).

10.2. Materials to avoid

- Acids

10.3. Hazardous decomposition products

- Negligible

11. TOXICOLOGICAL INFORMATION

11.1. Toxicological datas

Acute toxicity

- Oral route, LD 50, rat, > 4 g/kg
- Inhalation, LC 50, rat, > 4.74 mg/l
- Dermal route, LD 50, no data

Irritation

- Rabbit, slightly irritant (skin)
- Rabbit, slightly irritant (eyes)

Sensitization

- No data

Chronic toxicity

- no observed effect
- In vitro, no mutagenic effect
- Oral route (gavage), 10 days, various species, 330 mg/kg, No teratogenic effect

Comments

- No appreciable toxic effect

11.2. Health effects

Inhalation

- Slight nose irritation.

Eyes contact
- Moderate irritation.

Skin contact
- Negligible

Ingestion
- By ingestion of large quantities: nausea and vomiting.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Acute ecotoxicity
- Fishes, Oncorhynchus mykiss, LC 50, 96 h, 7,700 mg/l
- Fishes, Oncorhynchus mykiss, NOEC, 96 h, 2,300 mg/l
- Fishes, Lepomis macrochirus, LC 50, 96 h, 7,100 mg/l
- Fishes, Lepomis macrochirus, NOEC, 96 h, 5,200 mg/l
- Crustaceans, Daphnia magna, EC 50, 48 h, 4,100 mg/l
- Crustaceans, Daphnia magna, NOEC, 48 h, 3,100 mg/l

12.2. Mobility
- Water
  Result: considerable solubility and mobility
- Soil/sediments
  Result: considerable solubility and mobility

12.3. Persistence and degradability

Abiotic degradation
- Water, hydrolysis
  Result: acid/base equilibrium as a function of pH
  Degradation's products: carbonic acid/carbon dioxide (pH < 6) / bicarbonate (pH 6 - 10) / carbonate (pH > 10)

Biotic degradation
- Result: not applicable

12.4. Bioaccumulative potential
- Result: non-bioaccumulable

12.5. Other adverse effects
- Study in progress

12.6. Comments
- Product is not significantly hazardous for the environment.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment
- Dispose in compliance with local/federal and national regulations.
- Contact waste exchanges for recycling.
- Or
- Dissolve in water.
- Neutralise the product with an acid.

13.2. Packaging treatment
- To avoid treatments, as far as possible, use dedicated containers.
- If not,
- Rinse the empty containers with plenty of water and treat the effluent in the same way as waste.
- Or

- Dispose of the containers by dispatching them to an approved industrial incineration facility.
- The empty and clean containers are to be reused in conformity with regulations.

14. TRANSPORT INFORMATION

- Not subject

15. REGULATORY INFORMATION

15.1. EC Labelling

- Not classified according to Directive 67/548/EEC.

16. OTHER INFORMATION

16.1. Reason for update

- Update:
- sections 9 - 16

This MSDS is intended for only the selected countries to which it is applicable. For example, this MSDS is not intented for use nor distribution within North America. You should contact Solvay America company representative for the official North America MSDS.
The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.