

## BICAR ® FCC

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

- Product name	: BICAR ® FCC
- Chemical Name	: Sodium hydrogencarbonate
- Synonyms	: Sodium bicarbonate
- Molecular formula	: NaHCO <sub>3</sub>
- REACH Registration Number	: 01-2119457606-32
- Type of product	: Substance

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

- Identified uses	: - Food additive (E500ii)
	- Water treatment

#### 1.3. Details of the supplier of the safety data sheet

- Company	: SOLVAY CHIMICA ITALIA S.p.A.
- Address	: VIA PIAVE, 6 I- 57013 ROSIGNANO SOLVAY
- Telephone	: +390586721111
- Fax	: +390586721738
- E-mail address	: <a href="mailto:manager.sds@solvay.com">manager.sds@solvay.com</a>

#### 1.4. Emergency telephone number

- Emergency telephone number	+44(0)1235 239 670 [CareChem 24] (Europe)
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### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### 2.1.1. European regulation (EC) 1272/2008, as amended

*Not classified as hazardous according to the European regulation (EC) 1272/2008, as amended*

##### 2.1.2. European Directive 67/548/EEC or 1999/45/EC, as amended

*Not classified as hazardous according to European Directive 67/548/EEC or 1999/45/EC, as amended*

#### 2.2. Label elements

*No labelling*

#### 2.3. Other hazards

- None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

##### 3.1.1. Concentration

Substance name:	Concentration
<b>Sodium bicarbonate</b>	<b>&gt;= 99 %</b>
CAS-No.: 144-55-8 / EC-No.: 205-633-8 / Index-No.: - REACH Registration Number: 01-2119457606-32	

### SECTION 4. FIRST AID MEASURES

#### 4.1. Description of first aid measures

##### 4.1.1. If inhaled

- Move to fresh air.
- If symptoms persist, call a physician.

##### 4.1.2. In case of eye contact

- Rinse thoroughly with plenty of water, also under the eyelids.
- If eye irritation persists, consult a specialist.

##### 4.1.3. In case of skin contact

- Wash off with soap and water.

##### 4.1.4. If swallowed

- Rinse mouth with water.
- If symptoms persist, call a physician or Poison Control Centre immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

##### 4.2.1. Inhalation

- No hazards to be specially mentioned.

##### 4.2.2. Skin contact

- No hazards to be specially mentioned.
- Repeated or prolonged exposure: Contact with dust can cause mechanical irritation or drying of the skin.

##### 4.2.3. Eye contact

- Dust contact with the eyes can lead to mechanical irritation.

##### 4.2.4. Ingestion

- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

#### 4.3. Indication of any immediate medical attention and special treatment needed

- When symptoms persist or in all cases of doubt seek medical advice.

### SECTION 5. FIREFIGHTING MEASURES

#### 5.1. Extinguishing media

##### 5.1.1. Suitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### 5.1.2. Unsuitable extinguishing media

- None.

#### 5.2. Special hazards arising from the substance or mixture

- Not combustible.

### 5.3. Advice for firefighters

- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. Advice for non-emergency personnel

- Evacuate personnel to safe areas.
- Avoid dust formation.

#### 6.1.2. Advice for emergency responders

- Use personal protective equipment.
- Sweep up to prevent slipping hazard.
- Prevent further leakage or spillage.

### 6.2. Environmental precautions

- Do not flush into surface water or sanitary sewer system.
- Prevent any mixture with an acid into the sewer/drain (gas formations).

### 6.3. Methods and materials for containment and cleaning up

- Pick up and transfer to properly labelled containers.
- Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

## SECTION 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

- Ensure adequate ventilation.
- Minimize dust generation and accumulation.
- Avoid contact with skin and eyes.
- Keep away from Incompatible products.

### 7.2. Conditions for storage, including incompatibilities

#### 7.2.1. Storage

- Store in original container.
- Keep in a dry place.
- Keep in properly labelled containers.
- Keep container closed.
- Keep away from Incompatible products.

#### 7.2.2. Packaging material

##### 7.2.2.1. Suitable material

- Paper + PE.
- Polyethylene

##### 7.2.2.2. Unsuitable material

- No data available

### 7.3. Specific end use(s)

- This grade of the product is not intended for pharmaceutical applications.
- For further information, please contact: Supplier



## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### 8.1.1. Exposure Limit Values

##### **Sodium bicarbonate**

- SAEL (Solvay Acceptable Exposure Limit) 2007  
TWA = 10 mg/m<sup>3</sup>

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

- Provide appropriate exhaust ventilation at places where dust is formed.
- Apply technical measures to comply with the occupational exposure limits.

#### 8.2.2. Individual protection measures

##### 8.2.2.1. Respiratory protection

- Use only respiratory protection that conforms to international/ national standards.
- Respirator with a dust filter
- Recommended Filter type: P2

##### 8.2.2.2. Hand protection

- Impervious gloves

##### 8.2.2.3. Eye protection

- Safety goggles

##### 8.2.2.4. Skin and body protection

- No special protective equipment required.

##### 8.2.2.5. Hygiene measures

- When using, do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

#### 8.2.3. Environmental exposure controls

- Dispose of rinse water in accordance with local and national regulations.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### 9.1.1. General Information

- |                           |                     |
|---------------------------|---------------------|
| ■ <b>Appearance</b>       | crystalline, powder |
| ■ <b>Colour</b>           | white               |
| ■ <b>Odour</b>            | odourless           |
| ■ <b>Molecular weight</b> | 84.01 g/mol         |

#### 9.1.2. Important health safety and environmental information

- |                                       |  |
|---------------------------------------|--|
| ■ <b>pH</b>                           | 8.4; at 8.4 g/l, 25 °C (Water)           |
|                                       | 8.6; at 52 g/l                           |
| ■ <b>pKa</b>                          | pKa1= 6.33                               |
| ■ <b>Melting point/freezing point</b> | No data available, Thermal decomposition |
| ■ <b>Boiling point/boiling range</b>  | No data available, Thermal decomposition |
| ■ <b>Flash point</b>                  | Not applicable, inorganic                |
| ■ <b>Evaporation rate</b>             | No data                                  |
| ■ <b>Flammability (solid, gas)</b>    | The product is not flammable.            |
| ■ <b>Flammability</b>                 | Not applicable                           |

■ <b>Explosive properties</b>	Not expected
■ <b>Vapour pressure</b>	No data available, Thermal decomposition
■ <b>Vapour density</b>	Not applicable
■ <b>Density</b>	2.21 kg/dm <sup>3</sup>
■ <b>Relative density</b>	2.21 - 2.23, at 20 °C
■ <b>Bulk density</b>	from 0.5 - 1.3 kg/dm <sup>3</sup>
■ <b>Solubility(ies)</b>	69 g/l (Water), at 0 °C 93 g/l (Water), at 20 °C 165 g/l (Water), at 60 °C
■ <b>Solubility/qualitative</b>	insoluble, Alcohol
■ <b>Partition coefficient: n-octanol/water</b>	Not applicable, inorganic
■ <b>Auto-ignition temperature</b>	Not applicable
■ <b>Decomposition temperature</b>	> 50 °C
■ <b>Viscosity</b>	Not applicable
■ <b>Oxidizing properties</b>	Not expected

## 9.2. Other information

Remarks No data available

## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

- Incompatible with acids.
- Decomposes slowly on exposure to water.

### 10.2. Chemical stability

- Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

- none

### 10.4. Conditions to avoid

- Exposure to moisture.
- To avoid thermal decomposition, do not overheat.

### 10.5. Incompatible materials

- Acids

### 10.6. Hazardous decomposition products

- none

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Acute toxicity

#### 11.1.1. Acute oral toxicity

- LD50, Rat, > 4,000 mg/kg

**11.1.2. Acute inhalation toxicity**

- LC50, Rat , > 4.74 mg/l

**11.1.3. Acute dermal toxicity**

- No data available

**11.2. Skin corrosion/irritation**

- Rabbit, No skin irritation

**11.3. Serious eye damage/eye irritation**

- Rabbit, No eye irritation

**11.4. Respiratory or skin sensitisation**

- No data available

**11.5. Germ cell mutagenicity**

- Genotoxicity in vitro, Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- In vivo, No data available

**11.6. Carcinogenicity**

- Rat, Animal testing did not show any carcinogenic effects.

**11.7. Reproductive toxicity**

- Oral route (gavage), 10 days, Rabbit, 330 mg/kg, Did not show teratogenic effects in animal experiments.

**11.8. Specific target organ toxicity - single exposure**

- Remarks: No data available

**11.9. Specific target organ toxicity - repeated exposure**

- Remarks: No data available

**11.10. Aspiration hazard**

- No data available

**11.11. Other information**

- No data available

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1. Toxicity**

- Fishes, *Lepomis macrochirus*, LC50, 96 h, 7,100 mg/l
- Fishes, *Lepomis macrochirus*, NOEC, 96 h, 5,200 mg/l
- Crustaceans, *Daphnia magna*, EC50, 48 h, 4,100 mg/l
- Crustaceans, *Daphnia magna*, NOEC, 48 h, 3,100 mg/l
- Crustaceans, *Daphnia magna*, NOEC, 21 Days, > 576 mg/l

**12.2. Persistence and degradability**

**12.2.1. Abiotic degradation**

- Water, hydrolyses  
Result: acid/base equilibrium as a function of pH  
Degradation products: carbonic acid/bicarbonate/carbonate

**12.2.2. Biodegradation**

- The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

- Does not bioaccumulate.

**12.4. Mobility in soil**

- Water, Soil/sediments  
Solubility(ies)

- Water, Soil/sediments  
high mobility.

#### 12.5. Results of PBT and vPvB assessment

- According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
- This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
- This substance is not considered to be very persistent and very bioaccumulating (vPvB).

#### 12.6. Other adverse effects

- No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

- Contact waste disposal services.
- If recycling is not practicable, dispose of in compliance with local regulations.
- Dilute with plenty of water.
- Neutralise with acid.
- In accordance with local and national regulations.

#### 13.2. Contaminated packaging

- Where possible recycling is preferred to disposal or incineration.
- Clean container with water.
- Dispose of rinse water in accordance with local and national regulations.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

### SECTION 14. TRANSPORT INFORMATION

#### International transport regulations

- not regulated

### SECTION 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended
- Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances, as amended
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, as amended
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste

##### 15.1.1. Notification status

Inventory Information	Status
Australia. Inventory of Chemical Substances (AICS)	- In compliance with inventory
Canada. Domestic Substances List (DSL)	- In compliance with inventory
Korea. Existing Chemicals Inventory (KECI (KR))	- In compliance with inventory
EU list of existing chemical substances (EINECS)	- In compliance with inventory
Japan. Inventory of Existing & New Chemical Substances (ENCS)	- In compliance with inventory
China. Inventory of Existing Chemical Substances (IECSC)	- In compliance with inventory
Philippine. Inventory of Chemicals and Chemical Substances (PICCS)	- In compliance with inventory
USA. Toxic Substances Control Act (TSCA)	- In compliance with inventory
New Zealand. Inventory of Chemicals (NZIOC)	- In compliance with inventory
Mexico INSQ (INSQ)	- In compliance with inventory

#### 15.2. Chemical Safety Assessment

- none

### SECTION 16. OTHER INFORMATION

#### 16.1. Other information

- Update

This data sheet contains changes from the previous version in section(s): 12.1

This SDS is only intended for the indicated country to which it is applicable. The European SDS format compliant with the applicable European legislation is not intended for use nor distribution in countries outside the European Union with the exception of Norway and Switzerland. Safety datasheets applicable in other countries/regions are available upon request.

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.

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