

# SAFETY DATA SHEET

According to Directive 2001/58/EC

## BICAR® FCC

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

#### 1.1. Identification of the substance/preparation

Product name : BICAR® FCC  
Chemical Name : Sodium hydrogencarbonate  
Synonyms : Sodium bicarbonate  
Molecular formula : NaHCO<sub>3</sub>  
Molecular Weight : 84.02 g/mol

#### 1.2. Use of the Substance/Preparation

Recommended use : - Product grade: food  
- Water treatment

#### 1.3. Company/Undertaking Identification

Address : SOLVAY CHEMICALS INTERNATIONAL SA  
RUE DU PRINCE ALBERT, 44  
B- 1050 BRUXELLES

Telephone : +3225096111

Telefax : +3225096624

#### 1.4. Emergency and contact telephone numbers

Emergency telephone number : +44(0)208 762 8322 [CareChem 24] (Europe)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### Sodium bicarbonate

CAS-No. : 144-55-8  
EINECS-No. : 205-633-8  
Concentration : **>= 99.00 %**

### 3. HAZARDS IDENTIFICATION

Appearance : crystalline, powder  
Colour : white  
Odour : odourless

- 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. Eye contact

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

#### 4.3. Skin contact

- Wash off with plenty of water.

#### 4.4. Ingestion

*The following actions are recommended :*

- If a large amount is swallowed, get medical attention.

*If victim is conscious:*

- If swallowed, rinse mouth with water (only if the person is conscious).

*If victim is unconscious but breathing:*

- not applicable

### 5. FIRE-FIGHTING MEASURES

#### 5.1. Suitable extinguishing media

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

#### 5.2. Extinguishing media which must not be used for safety reasons

- None.

#### 5.3. Special exposure hazards in a fire

- Not combustible.

#### 5.4. Special protective equipment for fire-fighters

- No special precautions required.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions

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

#### 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 for cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Avoid dust formation.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

### 7. HANDLING AND STORAGE

#### 7.1. Handling

- Keep away from Incompatible products.

#### 7.2. Storage

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



### 7.3. Specific use(s)

- For further information, please contact: Supplier

### 7.4. Packaging material

- Paper + PE.
- Polyethylene

### 7.5. Other information

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

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Exposure Limit Values

#### Sodium bicarbonate

- SAEL (Solvay Acceptable Exposure Limit) 2005  
TWA = 10 mg/m<sup>3</sup>

### 8.2. Exposure controls

- Ensure adequate ventilation.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in sections 7 and 8.
- Apply technical measures to comply with the occupational exposure limits.

#### 8.2.1. Occupational exposure controls

##### 8.2.1.1. Respiratory protection

- Use only respiratory protection that conforms to international/ national standards.
- In case of dust clouds/fog/fumes, dust mask type P1.

##### 8.2.1.2. Hand protection

- Wear suitable gloves.

##### 8.2.1.3. Eye protection

- Dust proof goggles, if dusty.

##### 8.2.1.4. Skin and body protection

- None.

##### 8.2.1.5. 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.

#### 8.2.2. Environmental exposure controls

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General Information (appearance, odour)

Appearance	: crystalline, powder
Colour	: white
Odour	: odourless

### 9.2. Important health safety and environmental information

pH	: 8.6 Concentration: 52 g/l
Boiling point/range	: Remarks: not applicable, Thermal decomposition



<b>Flash point</b>	: <i>Remarks: not applicable</i>
<b>Flammability</b>	: <u>Lower explosion limit:</u> <i>Remarks: The product is not flammable.</i>
<b>Explosive properties</b>	: <u>Explosion danger:</u> <i>Remarks: Not explosive</i>
<b>Oxidizing properties</b>	: <i>Remarks: Non oxidizer</i>
<b>Vapour pressure</b>	: <i>Remarks: not applicable</i>
<b>Relative density / Density</b>	: 2.22
<b>Bulk density</b>	: from 0.5 - 1.2 kg/dm <sup>3</sup>
<b>Solubility</b>	: Water 96 g/l <i>Temperature: 20 °C</i> : Other : slightly soluble : Alcohol
<b>Partition coefficient (n-octanol/water)</b>	: <i>Remarks: not applicable</i>
<b>Viscosity</b>	: 1.2 mPa.s
<b>Vapour density</b>	: <i>Remarks: not applicable</i>

### 9.3. Other data

<b>Melting point/range</b>	: <i>Remarks: not applicable, Decomposition</i>
<b>Autoinflammability</b>	: <i>Remarks: The product is not flammable.</i>
<b>Decomposition temperature</b>	: > 60 °C

## 10. STABILITY AND REACTIVITY

### 10.1. Stability

- Stable under recommended storage conditions.

### 10.2. Conditions to avoid

- none

### 10.3. Materials to avoid

- Acids

### 10.4. Hazardous decomposition products

- none

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Toxicological data

#### *Acute oral toxicity*

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

#### *Acute inhalation toxicity*

- LC50, rat, > 4.74 mg/l



**Acute dermal toxicity**

- LD50, Remarks: no data available

**Skin irritation**

- rabbit, Mild skin irritation

**Eye irritation**

- rabbit, Mild eye irritation

**Sensitization**

- no data available

**Chronic toxicity**

- no observed effect

**Genetic toxicity in vitro**

- Genotoxicity in vitro, Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Teratogenicity**

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

**Possible hazards (summary)**

- Health injuries are not known or expected under normal use.

**11.2. Health effects****Inhalation**

- Mechanical irritation from the particulates generated by the product.

**Eye contact**

- Mechanical irritation from the particulates generated by the product.

**Skin contact**

- Mechanical irritation from the particulates generated by the product.

**Ingestion**

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

**12. ECOLOGICAL INFORMATION****12.1. Ecotoxicity effects****Acute toxicity**

- Fishes, *Oncorhynchus mykiss*, LC50, 96 h, 7,700 mg/l
- Fishes, *Oncorhynchus mykiss*, NOEC, 96 h, 2,300 mg/l
- 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

**12.2. Mobility**

- Water, Soil/sediments  
Remarks: Solubility
- Water, Soil/sediments  
Remarks: Mobility

**12.3. Persistence and degradability****Abiotic degradation**

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



#### **Biodegradation**

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

#### **12.4. Bioaccumulative potential**

- Result: not applicable

#### **12.5. Other adverse effects**

- no data available

#### **12.6. Possible hazards (summary)**

- Ecological injuries are not known or expected under normal use.

### **13. DISPOSAL CONSIDERATIONS**

#### **13.1. Waste from residues / unused products**

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

#### **13.2. Packaging treatment**

- To avoid treatments, as far as possible, use dedicated containers.
- or
- Clean container with water.
- Dispose of rinse water in accordance with local and national regulations.
- The empty and clean containers are to be reused in conformity with regulations.
- or
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

### **14. TRANSPORT INFORMATION**

- Sea (IMO/IMDG)  
not regulated
- Air (ICAO/IATA)  
not regulated
- European Road/Rail (ADR/RID)  
not regulated

### **15. REGULATORY INFORMATION**

#### **15.1. EC Label**

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

#### **15.2. Inventory Information**

<b>Australian Inventory of Chemical Substances (AICS)</b>	: -	In compliance with inventory.
<b>Canadian Domestic Substances List (DSL)</b>	: -	In compliance with inventory.
<b>Korean Existing Chemicals List (ECL)</b>	: -	In compliance with inventory.



<b>EU list of existing chemical substances (EINECS)</b>	: -	In compliance with inventory.
<b>Japanese Existing and New Chemical Substances (MITI List) (ENCS)</b>	: -	In compliance with inventory.
<b>Inventory of Existing Chemical Substances (China) (IECS)</b>	: -	In compliance with inventory.
<b>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</b>	: -	In compliance with inventory.
<b>Toxic Substance Control Act list (TSCA)</b>	: -	In compliance with inventory.
<b>New Zealand Inventory (in preparation) (NZ)</b>	: -	All components on composite list considered for transfer.

### 15.3. Other regulations

- European Waste Catalogue, Decision (2000/532/EC), Waste codes should be assigned by the user based on the application for which the product was used.

## 16. OTHER INFORMATION

### 16.1. Administrative information

- Update  
This data sheet contains changes from the previous version in section(s): 15,16
- Distribute new edition to clients

This MSDS is intended for only the selected countries to which it is applicable. For example, this MSDS is not intended 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.

