

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name SAFEKLINIC[®]
- REACH : Registration number 01-2119457606-32

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance/Mixture**

- Cleaning agent for jet systems
- Detergent
- Environmental protection
- Water treatment

1.3 Details of the supplier of the safety data sheet**Company**

BICARJET S.r.l.
Via Nona Strada, 4
35129 Padova
Italy
Tel: +39 049 7808036
Fax: +39 049 7927203

E-mail address

info@bicarmed.com

1.4 Emergency telephone number

+44(0)1235 239 670 [CareChem 24]

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (Regulation (EC) No 1272/2008)**

- Not classified as hazardous product under the regulation above.

2.2 Label elements**Regulation (EC) No 1272/2008**

- Not labelled as hazardous product under the above regulation.

Additional Labeling

- EUH210 Safety data sheet available on request.

2.3 Other hazards which do not result in classification

- None known.

Results of PBT and vPvB assessment

- Not applicable (inorganic substance)

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Chemical name Sodium hydrogencarbonate
- Synonyms Sodium bicarbonate
- Formula NaHCO₃

Information on Components and Impurities

Chemical name	Identification number	Classification Regulation (EC) No 1272/2008	Concentration [%]
sodium carbonate	Index-No. : 011-005-00-2 CAS-No. : 497-19-8	Eye irritation, Category 2 ; H319	>= 1 - < 5
sodium hydrogencarbonate	CAS-No. : 144-55-8 EINECS-No. : 205-633-8 Registration number: 01-2119457606-32-xxxx	Not classified	>= 95 - < 99
	self classification		

For the full text of the H-Statements mentioned in this Section, see Section 16.

3.2 Mixture

- Not applicable, this product is a substance.

SECTION 4: First aid measures**4.1 Description of first aid measures****In case of inhalation**

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

In case of skin contact

- Wash off with soap and water.

In case of eye contact

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

In case of ingestion

- 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

In case of inhalation**Effects**

- No hazards to be specially mentioned.
- At high concentrations:
- slight irritation

In case of skin contact**Effects**

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

In case of eye contact**Effects**

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

In case of ingestion**Effects**

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

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

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

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

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

Unsuitable extinguishing media

- None

5.2 Special hazards arising from the substance or mixture

- Not combustible.

5.3 Advice for firefighters**Special protective equipment 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****Advice for non-emergency personnel**

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

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

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.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Store in original container.
- Keep in a dry place.
- Keep in properly labelled containers.
- Keep container closed.

- Keep away from:
- Incompatible products

Packaging material

Suitable material

- Paper.
- Polyethylene

Unsuitable material

- No data available

7.3 Specific end use(s)

- This grade of the product is not intended for pharmaceutical, feed or food applications.
- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace occupational exposure limits

Components	Value type	Value	Basis
sodium carbonate	TWA	10 mg/m ³	Solvay Acceptable Exposure Limit

Derived No Effect Level (DNEL) / Derived minimal effect level (DMEL)

Product name	Population	Route of exposure	Potential health effects	Exposure time	Value	Remarks
sodium carbonate	Workers	Inhalation	Local effects	Long term	10 mg/m ³	
	General population	Inhalation	Local effects	Acute	10 mg/m ³	

8.2 Exposure controls

Control measures

Engineering measures

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

Individual protection measures

Respiratory protection

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

Hand protection

- Impervious gloves

Eye protection

- Safety goggles

Skin and body protection

- Dust impervious protective suit

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.

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

Appearance

Form: crystalline, powder
 Physical state: solid
 Colour: white

Odour

odourless

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<u>Odour Threshold</u>	No data available
<u>Molecular weight</u>	84.01 g/mol
<u>pH</u>	8.4 (ca. 8.4 g/l) (25 °C) Water 8.6 (ca. 52 g/l) <u>pKa</u> : 6.3
<u>Melting point/freezing point</u>	<u>Melting point/range</u> : Decomposition: yes
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range</u> : Thermal decomposition: yes
<u>Flash point</u>	Not applicable, inorganic
<u>Evaporation rate (Butylacetate = 1)</u>	No data available
<u>Flammability (solid, gas)</u>	The product is not flammable.
<u>Flammability/Explosive limit</u>	<u>Explosiveness</u> : Not expected
<u>Auto-ignition temperature</u>	Not applicable
<u>Vapour pressure</u>	Thermal decomposition
<u>Vapour density</u>	Not applicable
<u>Density</u>	2.21 kg/dm ³ <u>Bulk density</u> : 0.5 - 1.3 kg/dm ³
<u>Relative density</u>	2.21 - 2.23 (20 °C)
<u>Solubility</u>	<u>Water solubility</u> : 69 g/l (0 °C) 93 g/l (20 °C) 165 g/l (60 °C) <u>Solubility in other solvents</u> : Alcohol : insoluble
<u>Partition coefficient: n-octanol/water</u>	Not applicable, inorganic
<u>Decomposition temperature</u>	> 50 °C
<u>Viscosity</u>	<u>Viscosity, dynamic</u> : Not applicable
<u>Explosive properties</u>	No data available
<u>Oxidizing properties</u>	Not expected

9.2 Other information

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 Information on toxicological effects

Acute toxicity

Acute oral toxicity

sodium hydrogencarbonate

LD50 : > 4,000 mg/kg - Rat , male and female
Method: according to a standardised method
The product has a low acute toxicity
Unpublished reports

sodium carbonate

LD50 : 2,800 mg/kg - Rat , male and female
The product has a low acute toxicity
Unpublished reports

Acute inhalation toxicity

sodium hydrogencarbonate

LC50 - 4.5 h (dust/mist) : > 4.74 mg/l - Rat , male and female
Method: according to a standardised method
Not classified as hazardous for acute inhalation toxicity according to GHS.
Unpublished reports
Dust

sodium carbonate

No data available

Acute dermal toxicity

sodium hydrogencarbonate

No data available

sodium carbonate

LD50 : > 2,000 mg/kg - Rabbit
Method: according to a standardised method
Not classified as hazardous for acute dermal toxicity according to GHS.
No mortality observed at this concentration.
Unpublished reports

Acute toxicity (other routes of administration)

No data available

Skin corrosion/irritation

sodium hydrogencarbonate

Rabbit
slight irritation
Method: OECD Test Guideline 404
Unpublished reports

sodium carbonate

Rabbit
Not classified as irritating to skin
Method: OECD Test Guideline 404
Unpublished reports

Serious eye damage/eye irritation

sodium hydrogencarbonate

Rabbit
slight irritation
Method: OECD Test Guideline 405
Unpublished reports

sodium carbonate

Rabbit
Irritating to eyes.
Method: according to a standardised method
Unpublished reports

Respiratory or skin sensitisation

No data available

Mutagenicity**Genotoxicity in vitro**

sodium hydrogencarbonate

Strain: Escherichia coli
with and without metabolic activationnegative
Method: according to a standardised method
Published dataAmes test
with metabolic activationnegative
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Published data

sodium carbonate

By analogy

Ames test
with metabolic activation
Product is not considered to be genotoxic
Published dataStrain: Escherichia coli
without metabolic activationnegative
Product is not considered to be genotoxic
Published data**Genotoxicity in vivo**

No data available

Carcinogenicity

No data available

Toxicity for reproduction and development**Toxicity to reproduction/Fertility**

No data available

Developmental Toxicity/Teratogenicity

sodium hydrogencarbonate

Rat, female, Oral
Teratogenicity NOAEL:> 340mg/kg
Method: according to a standardised method
Highest dose tested, The product is not considered to be embryotoxic/foetotoxic.,
Unpublished reportsRabbit, female, Oral
Teratogenicity NOAEL:> 330mg/kg
Method: according to a standardised method
Highest dose tested, The product is not considered to be embryotoxic/foetotoxic.,
Unpublished reports

sodium carbonate

Mouse, female, Oral
 General Toxicity Maternal NOAEL: ≥ 580 mg/kg
 Teratogenicity NOAEL: ≥ 580 mg/kg
 Method: according to a standardised method
 no embryotoxic or teratogenic effects have been observed, Unpublished reports

STOT**STOT - single exposure**

sodium hydrogencarbonate

Exposure routes: Oral, Inhalation
 The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.
 internal evaluation

sodium carbonate

The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.
 internal evaluation

STOT - repeated exposure

sodium carbonate

The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.
 internal evaluation

Experience with human exposure

No data available

Aspiration toxicity

No data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

sodium hydrogencarbonate

LC50 - 96 h : 7,100 mg/l - Lepomis macrochirus (Bluegill sunfish)
 flow-through test
 Analytical monitoring: yes

Method: according to a standardised method
 Unpublished internal reports
 Not harmful to fish (LC/LL50 > 100 mg/L)

Acute toxicity to daphnia and other aquatic invertebrates

sodium hydrogencarbonate

EC50 - 48 h : 4,100 mg/l - Daphnia magna (Water flea)
 flow-through test
 Analytical monitoring: yes
 Method: according to a standardised method
 Unpublished internal reports
 Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L)

Toxicity to aquatic plants

No data available

Toxicity to microorganisms

No data available

Chronic toxicity to fish No data available

Chronic toxicity to daphnia and other aquatic invertebrates

sodium hydrogencarbonate NOEC: > 576 mg/l - 21 Days - Daphnia magna (Water flea)
 semi-static test
 Analytical monitoring: no
 Method: OECD Test Guideline 211
 Highest concentration tested
 Published data
 No adverse chronic effect observed up to and including the threshold of 1 mg/L.

12.2 Persistence and degradability

Abiotic degradation

Stability in water

sodium hydrogencarbonate Product dissociates rapidly to corresponding ions on contact with water.,

Photodegradation

hydrolyses
 Test substance: Water
 carbonic acid/bicarbonate/carbonate
 acid/base equilibrium as a function of pH

Physical- and photo-chemical elimination

No data available

Biodegradation

Biodegradability

sodium hydrogencarbonate Not applicable (inorganic substance)

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

sodium hydrogencarbonate Not applicable (inorganic substance)

Bioconcentration factor (BCF)

Does not bioaccumulate.

12.4 Mobility in soil

Adsorption potential (Koc)

Solubility(ies)
 Water

Solubility(ies)
 Soil/sediments

Mobility
 Water

Mobility
 Soil/sediments

Known distribution to environmental compartments No data available

12.5 Results of PBT and vPvB assessment Not applicable (inorganic substance)

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

sodium hydrogencarbonate

Not harmful to aquatic life (LC/LL50, EC/EL50 > 100 mg/L)

Long-term (chronic) aquatic hazard

sodium hydrogencarbonate

No adverse chronic effect observed up to and including the threshold of 1 mg/L.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- 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.

Advice on cleaning and disposal of 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

ADR

not regulated

RID

not regulated

IMDG

not regulated

IATA

not regulated

ADN/ADNR

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

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

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Version : 4.03 / GB (EN)

Other regulations

- 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
- 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
- Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended

Notification status

Inventory Information	Status
United States TSCA Inventory	- Listed on Inventory
Mexico INSQ (INSQ)	- In compliance with the inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- In compliance with the inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- When purchased from a European Solvay legal entity, this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of Europe, please contact your local representative for additional information.

15.2 Chemical safety assessment

- Not applicable

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

- H319 Causes serious eye irritation.

Further information

- Update
- See section 8

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It

should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.