

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

- Trade name SAFE Klinik ®
- Chemical name Sodium hydrogen carbonate

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

- Blasting agent

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.

2.3 Other hazards which do not result in classification

- None known.

Ecological information

- The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information

- The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

- Not applicable, this product is a mixture.

3.2 Mixture

- Chemical name Sodium hydrogen carbonate
- Synonyms Sodium bicarbonate
- Formula NaHCO₃
- Chemical nature Mixture

Information on Components and Impurities

Chemical name	Identification number	Classification Regulation (EC) No 1272/2008	SCL, M-factor, ATE	Concentration [%]
sodium hydrogencarbonate	CAS-No. : 144-55-8 EINECS-No. : 205-633-8 Registration number: 01-2119457606-32-xxxx self classification	Not classified	ATE (Oral): > 4.000 mg/kg ATE (Inhalation): > 4,74 mg/l (dust/mist)	>= 99 - <= 100
calcium distearate	CAS-No. : 1592-23-0 EINECS-No. : 216-472-8 self classification	Not classified	ATE (Oral): > 2.000 mg/kg	0,1

Remarks

- No dangerous ingredients according to Regulation (EC) No. 1907/2006

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

P00000028824

Version : 3.01 / MT (EN)

www.bicarmed.com



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).

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**

<u>Physical state</u>	solid
<u>Form</u>	crystalline, powder
<u>Colour</u>	white
<u>Odour</u>	odourless
<u>Odour Threshold</u>	No data available
<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>Flammability (solid, gas)</u>	The product is not flammable.
<u>Flammability (liquids)</u>	No data available
<u>Flammability/Explosive limit</u>	No data available
<u>Flash point</u>	Not applicable, inorganic
<u>Auto-ignition temperature</u>	No data available
<u>Decomposition temperature</u>	> 50 °C
<u>pH</u>	8,4 (ca. 8,4 g/l) (25 °C) (as aqueous solution), Sodium bicarbonate

8,6 (ca. 52 g/l)
(as aqueous solution), Sodium bicarbonate
pKa: 6,3

<u>Viscosity</u>	<u>Viscosity, dynamic</u> : Not applicable
<u>Solubility</u>	<u>Water solubility:</u> 69 g/l (0 °C)Sodium bicarbonate 93 g/l (20 °C)Sodium bicarbonate 165 g/l (60 °C)Sodium bicarbonate <u>Solubility in other solvents:</u> Alcohol: insoluble Sodium bicarbonate
<u>Partition coefficient: n-octanol/water</u>	Not applicable, inorganic
<u>Vapour pressure</u>	Thermal decomposition
<u>Density</u>	<u>Bulk density:</u> 0,5 - 1,3 kg/dm ³ Sodium bicarbonate
<u>Relative density</u>	No data available
<u>Relative vapor density</u>	Not applicable
<u>Particle characteristics</u>	<u>Particle size:</u> < 200 µm (>= 80 %) < 45 µm (>= 35 %)
<u>Evaporation rate (Butylacetate = 1)</u>	No data available

9.2 Other information

<u>Explosiveness</u>	Not expected
<u>Oxidizing properties</u>	Not expected
<u>Self-ignition</u>	Not applicable

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

P00000028824
Version : 3.01 / MT (EN)

www.bicarmed.com



- Acids

10.6 Hazardous decomposition products

- none

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

calcium distearate

LD50 : > 2.000 mg/kg - Rat , female

Method: OECD Test Guideline 423

Not classified as hazardous for acute oral toxicity according to GHS.

No mortality observed at this dose.

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

Acute dermal toxicity

sodium hydrogencarbonate

No data available

Acute toxicity (other routes of administration)

No data available

Skin corrosion/irritation

sodium hydrogencarbonate

Rabbit

slight irritation

Method: OECD Test Guideline 404

Unpublished reports

calcium distearate

Rabbit

No skin irritation

Unpublished reports

Serious eye damage/eye irritation

sodium hydrogencarbonate

Rabbit

slight irritation

Method: OECD Test Guideline 405

Unpublished reports

calcium distearate

Guinea pig

No eye irritation

Unpublished reports

No data available

Respiratory or skin sensitisation

Mutagenicity

Genotoxicity in vitro

sodium hydrogencarbonate

Strain: Escherichia coli

with and without metabolic activation

negative

Method: according to a standardised method

Published data

	Ames test with metabolic activation
	negative Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Published data
calcium distearate	Mutagenicity (Salmonella typhimurium - reverse mutation assay) with and without metabolic activation
	negative Method: OECD Test Guideline 471 Unpublished reports Chromosome aberration test in vitro Strain: Chinese hamster lung cells with and without metabolic activation
	negative Method: OECD Test Guideline 473 Unpublished reports
Genotoxicity in vivo	No data available
<u>Carcinogenicity</u>	
calcium distearate	Not classifiable as a human carcinogen. Published data Unpublished reports
<u>Toxicity for reproduction and development</u>	
Toxicity to reproduction/Fertility	
calcium distearate	Rat, male and female, Oral General Toxicity F1 NOAEL: 1.000 mg/kg Fertility NOAEL Parent: 1.000 mg/kg OECD Test Guideline 421 no impairment of fertility has been observed, Unpublished reports
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 reports Rabbit, 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
calcium distearate	Rat, male and female, Oral General Toxicity Maternal NOAEL: 1.000 mg/kg Teratogenicity NOAEL:1.000mg/kg Method: OECD Test Guideline 421 no teratogenic effects have been observed, Unpublished reports
<u>STOT</u>	
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
calcium distearate	The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. internal evaluation
STOT - repeated exposure	

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

calcium distearate
 internal evaluation
 Oral 28-day - Rat
 NOAEL: 2000 mg/kg
 Method: OECD Test Guideline 407
 Unpublished reports
 No data available

Aspiration toxicity**11.2 Information on other hazards****Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Experience with human exposure

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)

calcium distearate LC50 - 96 h : > 100 mg/l - Oryzias latipes (Orange-red killifish)
 static test

Method: OECD Test Guideline 203
 (nominal concentrations)
 Unpublished reports
 No toxicity at the limit of solubility

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)

calcium distearate EC50 - 48 h : > 100 mg/l - Daphnia magna (Water flea)
 static test
 Method: OECD Test Guideline 202
 (nominal concentrations)
 Unpublished reports
 No toxicity at the limit of solubility

Toxicity to aquatic plants

calcium distearate ErC50 - 72 h : > 100 mg/l - Pseudokirchneriella subcapitata (green algae)
 static test
 Method: OECD Test Guideline 201
 Unpublished reports
 No toxicity at the limit of solubility

Toxicity to microorganisms

No data available

P0000028824

Version : 3.01 / MT (EN)

www.bicarmed.com



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.

Physical- and photo-chemical elimination

No data available

Biodegradation

Biodegradability

sodium hydrogencarbonate Not applicable (inorganic substance)

calcium distearate

Ready biodegradability study:
 The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability
 internal evaluation
 Unpublished reports

Degradability assessment

calcium distearate

The product is considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

sodium hydrogencarbonate Not applicable (inorganic substance)

calcium distearate

Bioaccumulative potential

Bioconcentration factor (BCF)

sodium hydrogencarbonate According to the available data on the constituents
 Not potentially bioaccumulable
 Expert judgement

12.4 Mobility in soil

Adsorption potential (Koc)

sodium hydrogencarbonate According to the available data on the constituents
 non-significant adsorption
 internal evaluation

Known distribution to environmental compartments

No data available

12.5 Results of PBT and vPvB assessment

sodium hydrogencarbonate Not applicable (inorganic substance)

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects**Ecotoxicity assessment****Short-term (acute) aquatic hazard**

sodium hydrogencarbonate

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

calcium distearate

No toxicity at the limit of solubility

Long-term (chronic) aquatic hazard

sodium hydrogencarbonate

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

calcium distearate

Not classified due to data which are conclusive although insufficient for classification.

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**ADN/ADNR**

not regulated

ADR

not regulated

RID

not regulated

IMDG

not regulated

IATA

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****Notification status**

Inventory Information	Status
United States TSCA Inventory	- For Cosmetic Use Only
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australian Inventory of Industrial Chemicals (AIIC)	- 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
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), 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 the EEA, please contact your local representative for additional information.

15.2 Chemical safety assessment

- Not applicable

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet**

- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.

P00000028824

Version : 3.01 / MT (EN)

www.bicarmed.com



- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

Further information

- Distribute new edition to clients

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).

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.

Conductance Value