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	SODIUM HYDROGENCARBONATE Natriumbicarbonaat (zuiveringszout) - ZOU06	
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Sodium hydrogencarbonate (CAS: 144-55-8, EC: 205-633-8)

Synonyms: Baking soda, sodium bicarbonate, bicarbonate, sodium hydrogencarbonate for the pharmaceutical industry, Sobic Health Care, sodium bicarbonate Food Grade E 500 (ii), Sobic Food, sodium bicarbonate (compacted) feed grade, Sobic Feed, sodium bicarbonate (compacted) technical grade, Sobic Tec.

The registration number: 01-2119457606-32-0010.

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

Relevant identified uses: Industrial uses: e.g.: pH regulation, flue gas treatment, formulation in cleaning products, processing aid in metal and mining industry, pulp and paper production, food, feed and pharmaceutical industry. Professional uses. Consumer uses.

Uses advised against: Not determined.

1.3. Details of the supplier of the safety data sheet

Producer: CIECH Soda Polska S.A.

Address: Poland; PL 88-101 Inowrocław; 4 Fabryczna street

Telephone: +48 52 354 15 00

E-mail address of the person responsible for the SDS: sds@ciechgroup.com

1.4. Emergency telephone number


112 (emergency call), 999 (emergency telephone number)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC:

Does not meet the criteria of classification.

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2.2. Label elements

Label accordance with Regulation 1272/2008/EC (CLP)

Hazard pictograms, signal words: None.

Hazard statements: None.

Precautionary statements: None.

2.3. Other hazards

The substance does not meet the PBT or vPvB criteria. The criteria of Annex XIII to the Regulation 1907/2008/EC (PBT or vPvB) does not apply to inorganic substances.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name:	Sodium hydrogencarbonate
Concentration [%]:	≥99
CAS Number:	144-55-8
EC Number:	205-633-8
Index Number:	-
Classification 1272/2008/EC:	-

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Move the affected person to fresh air and keep rested. Seek medical advice if necessary.

Skin contact: Immediately remove contaminated clothing. Flush contaminated skin with plenty of water and soap, then rinse with plenty of water. Seek medical advice if necessary.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Avoid strong stream of water due to the risk of mechanical damage to the cornea. Seek medical advice if necessary.


Ingestion: Do not induce vomiting. Rinse mouth with water, and then give to drink plenty of water. Seek medical advice if necessary.

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

Inhalation: Irritating of mucous membranes and upper respiratory tracks, cough, irregular breath.

Eye contact: May cause slight irritation, tearing, stinging and redness.

Skin contact: May cause slight irritation, redness, pain, itching.

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Ingestion: By bigger amounts intake vomiting, stomach ache, diarrhea, in drastic cases stomach disruption (CO₂ release) may occur.

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

Remove affected person from the contaminated product of the environment. In the event of health problems, consult your doctor or the centre of toxicological concern. Provide the information contained in the SDS. If unconscious do not give anything by mouth.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Extinguishing media suitable to the burning media in the surrounding should be applied.

Unsuitable extinguishing media: Water jet.

5.2. Special hazards arising from the substance or mixture

Substance is not inflammable. During combustion produce hazardous products (e.g. carbon oxide, carbon dioxide). Avoid inhalation of combustion products, because they may pose a health risk.

5.3. Advice for firefighters

Wear full protective equipment and self-contained breathing apparatus with independent air circulation. Containers exposed to fire or high temperature cool with water and if possible remove from the danger zone. Take up mechanically. Keep out of drains, surface waters and soil against pollution. Water from fire treated as hazardous pollution and accumulate in separate containers.

SECTION 6: Accidental release measures


6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Should restrict access to non-emergency personnel to the area of failure until the completion of the disposal of the product. Wear appropriate personal protective equipment. Do not drink, eat and smoke. Provide adequate local and general ventilation. Avoid direct contact with the substance. Avoid inhalation of dust.

For emergency responders: Wear appropriate personal protective equipment. Do not drink, eat and smoke. Provide adequate local and general ventilation. Avoid direct contact with the substance. Avoid inhalation of dust.

6.2. Environmental precautions

Secure the gullies. Prevent contamination of surface water and ground. In the event of any serious pollution of the environment, notify the appropriate administrative authority,

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control and rescue services. Dispose of used packaging to deliver to eligible organizations.

6.3. Methods and material for containment and cleaning up

Secure the gullies. Keep damaged packaging. Damaged container and place in a substitute container. Collect the spilled substance mechanically avoiding the formation of dust, transfer to a tightly sealed containers and be disposed of or recycled. Contaminated area with plenty of water.

6.4. Reference to other sections

Disposal - see Section 13. Personal protective equipment - see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not eat, drink, smoke or take drugs at work. Remove contaminated clothing and clean before reuse. Avoid skin and eye contact. Avoid inhalation of dust. Wash your hands before break and after working with the product. The workplace should be equipped with a shower and eye wash position. Prevent against penetration into drains, surface and ground water and soil.

7.2. Conditions for safe storage, including any incompatibilities

Keep in properly labeled, factory tightly sealed, with a label which complies with current regulations. Ensure adequate ventilation. Store in dry, clean and covered from the top compartments with humidity 30 % – 70 % (substance may be lumpy) at the temperature not higher than 35 °C, in hermetically closed packaging. Keep away from alkali metals, acids. Unit packaging – sacks or big-bags should be placed on pallets. Protect against moisture. During storage and transport substance may form soft, easily crumbled lumps.

7.3. Specific end use(s)


Provided in subsection 1.2.

Follow the instructions given in this SDS.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance name	TWA	STEL	BLV
Dusts	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)	-	-

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Legal basis: Ordinance on maximum permissible concentration and intensity of harmful factors in the work environment in accordance with national limit values. EH40/2005 Workplace exposure limits, third edition, published 2018, ISBN 978 0 7176 6703 1.

Monitoring procedures:

Use methods described in European Standards.

DNEL_{long-term}

For the determination of a DNEL_{long-term}, no reliable repeated-dose studies were available (from which normally a critical effect NOAEL is used to derive a DNEL). After assessment of the physicochemical, toxicokinetic and the normal physiological role of sodium hydrogencarbonate, it is concluded that these studies are not required.

DNEL_{acute}

A DNEL_{acute} should be established for substances if an acute toxicity hazard (leading to classification and labelling) has been identified and a potential for high peak exposures exists. Since sodium hydrogencarbonate has not been classified. In addition, in the acute studies (oral and inhalation) LD₅₀ derived were close or above the highest given doses). Therefore considered that the establishment of DNEL_{acute} for sodium hydrogencarbonate is not necessary.

PNEC_{water}

Because the natural pH, hydrogencarbonate and sodium ions concentration (and also their fluctuations in time) varies significantly between aquatic ecosystems, it is not considered useful to derive a generic PNEC_{water}.

PNEC_{sediment}

No toxicity data on sediment organisms are available. Sodium hydrogencarbonate is present in the environment as sodium and hydrogencarbonate ions, which implies that it will not adsorb on particulate matter, and it is not considered useful to derive a PNEC_{sediment}.

PNEC_{soil}

Toxicity tests that determined the effect of sodium hydrogencarbonate on terrestrial organisms are not available. Calculation of a PNEC_{soil} is not necessary because exposure of the soil compartment is unlikely, sodium hydrogencarbonate is naturally present in soil and the toxicity for terrestrial organisms is expected to be low.

PNEC_{atmospheric}


Solid sodium hydrogencarbonate has a negligible vapour pressure and for this reason it will not be distributed to the atmosphere, it is therefore not considered useful to derive a PNEC_{atmospheric}.

PNEC_{STP}

Because the natural pH, hydrogencarbonate and sodium ions concentration (and also their fluctuations in time) varies significantly between aquatic ecosystems, it is not considered useful to derive a generic PNEC_{STP}. The toxicity of sodium hydrogencarbonate to micro-organisms is expected to be low because the substance is naturally present in water.

PNEC_{oral secondary poisoning}

Since sodium hydrogencarbonate is an important extracellular buffer in vertebrates and is readily regulated in the body, it is not considered useful to derive a PNEC_{oral secondary poisoning}.

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8.2. Exposure controls

8.2.1 Appropriate engineering controls

Mandatory general regulations on occupational health. Do not allow the crossing of the environment, the workplace concentration limits for hazardous constituents. After work, wash and clean the surface of the body and protective clothing. Do not eat, drink, smoke or take drugs at work. Remove contaminated clothing and clean before reuse. Wash hands and face before break and after working with the product. Avoid skin and eye contact. Avoid inhalation of dust. Provide adequate local and general ventilation. The workplace should be equipped with a shower and eye wash position.

8.2.2 Individual protection measures, such as personal protective equipment

Eye / face protection: Wear suitable protective glasses of goggles type, e.g. made of polycarbonate (EN 166).

Skin Protection: In industrial usage wear protective clothing made of natural materials (cotton) or synthetic fibres and gloves (glove materials: nitrile-, butyl-, neoprene-rubber or PVC); glove thickness: 0.5 mm, break through time: > 480 min. (EN 374).

Respiratory protection: In the case of high concentrations of dust, use respiratory equipment with particle filter color-coded white and the symbol P.

Thermal Hazards: Not required.

Used personal protective equipment should meet the requirements of local/regional/national laws. The employer must provide personal protective equipment appropriate to the type of work and meeting all requirements, including maintenance and cleaning.

Concentrations should be monitored hazardous substances in the workplace in accordance with recognized test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

8.2.3 Environmental exposure controls

Do not introduce the product to ground water, sewage, waste water or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Solid - white (in grade I allowable lightly cream shade) powder or fine crystals
Odour:	Odourless
Odour threshold:	Not applicable (the substance is odourless)
pH:	8.6 (5 % aqueous solution) at 20 °C
Melting point/freezing point:	Study technically not feasible. In accordance with Section 2 of Annex XI of the REACH Regulation, the test does not need to be conducted due to the properties of the



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Initial boiling point and boiling range:	substance. Sodium hydrogencarbonate starts decomposing before melting. When heated over 50°C the release of CO ₂ starts, resulting in total decomposition at 270 °C. Therefore a melting point cannot be determined According to Annex VII of the REACH Regulation (point 7.3) the test does not need to be conducted as sodium hydrogencarbonate starts decomposing before boiling
Flash point:	According to Annex VII of the REACH Regulation (point 7.9) the test does not need to be conducted as sodium hydrogencarbonate is inorganic
Evaporation rate:	Negligible, because sodium hydrogencarbonate is an inorganic salt (vapor pressure is practically equal to 0)
Flammability (solid, gas):	The substance is non-flammable (results of a GLP-compliant guideline study, fully adequate for assessment)
Upper/lower flammability or explosive limits:	According to Annex VII of the REACH Regulation (point 7.11, specific rules for adaptation) the test does not need to be conducted since no chemical groups associated with explosive properties are present in the molecule. Potential explosive properties are indicated by the presence of certain reactive groups in the molecule and/or by the oxygen balance. No reactive groups are present. Considering the molecular structure of the substance, explosive properties are not expected
Vapour pressure:	Study technically not feasible (in accordance with Section 2 of Annex XI of the REACH Regulation, vapour pressure test does not need to be conducted due to the properties of the substance: sodium hydrogencarbonate starts decomposing when heated. Sodium hydrogencarbonate is an inorganic salt and therefore the vapour pressure can be considered negligible)
Vapour density:	Not applicable (sodium hydrogencarbonate is an inorganic salt)
Relative density:	Density: 2.21-2.23 at 20 °C
Solubility:	In water: 93.4 g/l at 20 °C and pH = 8.4 (Notox B.V., 2010). Its solubility in most organic solvents is negligible
Partition coefficient: n-octanol/water:	Not applicable (sodium hydrogencarbonate is inorganic is inorganic)

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Auto-ignition temperature:	Not applicable (based on the known chemical and physical properties of the substance, its chemical structure and experience in use, it can be concluded that sodium hydrogencarbonate does not possess pyrophoric properties and is not flammable on contact with water. Therefore it is considered justified to omit the respective testing)
Decomposition temperature:	When heated over 50 °C the release of CO ₂ resulting in total sodium hydrogencarbonate decomposition at 270 °C
Viscosity:	Not applicable - substance as a solid
Explosive properties:	According to Annex VII of the REACH Regulation (point 7.11, specific rules for adaptation) the test does not need to be conducted since no chemical groups associated with explosive properties are present in the molecule. Potential explosive properties are indicated by the presence of certain reactive groups in the molecule and/or by the oxygen balance. No reactive groups are present. Considering the molecular structure of the substance, explosive properties are not expected
Oxidising properties:	In accordance with Column 2 of Annex VII of the REACH Regulation, the study does not need to be conducted, as based on the chemical structure and taking into account chemical properties of the hydrogencarbonate anion oxidizing properties are not expected

9.2. Other information

In water solutions heavily corrosive for the majority of metals.

SECTION 10: Stability and reactivity

10.1. Reactivity


Under the conditions of storage and handling as intended - no reactivity. A hygroscopic substance.

10.2. Chemical stability

Under normal conditions of use and storage of the substance is stable. A hygroscopic substance. When heated over 50 °C the release of CO₂ resulting in total sodium hydrogencarbonate decomposition at 270 °C.

10.3. Possibility of hazardous reactions

Not specified.

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10.4. Conditions to avoid

Temperature not higher than 35 °C, humidity below 30 % and above 70 % (substance may be lumpy).

10.5. Incompatible materials

Alkali metals, acids.

10.6. Hazardous decomposition products

Carbon dioxide (CO₂) starts generating at temperature above 50 °C until temperature 270 °C (temperature of total decomposition of sodium hydrogencarbonate).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

Based on available data, the classification criteria are not met.

Oral:

LD₅₀ (oral, rat) 4000-7334 mg/kg b.w. The LD₅₀ studies presented indicate low acute oral toxicity in rats (GLP study). Considering the history of human use of sodium hydrogencarbonate, the effects of oral exposure are well known due to accidental and intentional ingestion by humans, and it is considered safe to ingest up to 4 g/kg b.w.

Inhalation:

The inhalation toxicity study (rats) indicated a low toxic potential, as 4.74 mg/l induced adverse effects only temporarily (GLP study).

Dermal:

No data available.


Based on these results, classification of sodium hydrogencarbonate for acute toxicity is not needed according to EU Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) No. 1272/2008.

Skin corrosion/irritation:

Sodium hydrogencarbonate was not irritating to rabbit skin in the GLP-compliant studies, performed according to OECD Guidelines 404 and 405 and EPA OTS 798.4470 and OTS 798.4500 protocols. Based on these results, classification of sodium hydrogencarbonate as skin irritant is not warranted according to EU Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) No. 1272/2008. The results of the irritation studies indicate that sodium hydrogencarbonate is non-corrosive.

Serious eye damage/irritation:

Sodium hydrogencarbonate was not irritating to rabbit eyes in the GLP-compliant studies, performed according to OECD Guidelines 404 and 405 and EPA OTS 798.4470 and OTS 798.4500 protocols. Based on these results, classification of sodium hydrogencarbonate as eye irritant is not warranted according to EU Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) No. 1272/2008. The results of the irritation studies indicate that sodium hydrogencarbonate is non-corrosive.

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Respiratory or skin sensitization:

Sodium hydrogencarbonate is considered not to have any sensitizing properties, based on the physiological role of both its constituent ions, as well as the fact that sensitizing effects of both sodium and hydrogencarbonate ions have never been reported, despite long-term historical and wide dispersive use (e.g.: human food, pharmaceutical, cosmetics and detergents).

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

In accordance with section 1 of Annex XI of the REACH Regulation, testing does not appear scientifically necessary. None of the mutagenicity tests were performed according to guidelines. However, all the results were negative and more or less well documented. Furthermore, sodium hydrogencarbonate is naturally present in cells and the structure does not indicate a genotoxic potential. Therefore, sodium hydrogencarbonate is considered to be not genotoxic. Moreover, is the substance already present in the tissue culture media of the in vitro test systems for genetic toxicity testing, and needed for normal function of the cells in culture. Testing sodium hydrogencarbonate in vitro will affect the cellular homeostasis due to osmolarity.

Carcinogenicity:

Based on available data, the classification criteria are not met.

No carcinogenic effects were found in a valid study when male Fischer 344 rats were exposed to sodium hydrogencarbonate alone. There is no evidence of sodium hydrogencarbonate having carcinogenic effects.

Reproductive toxicity:

Based on available data, the classification criteria are not met.

No data on reproduction toxicity were available. However, based on the normal physiological role of sodium and hydrogencarbonate no toxicity on mammalian reproduction is expected. No further study is considered necessary for this endpoint. Sodium hydrogencarbonate did not induce developmental effects when administered orally at the following doses: 580 mg/kg b.w. (mice), 340 mg/kg b.w. (rats) and 330 mg/kg b.w. (rabbits). Furthermore the substance will usually not reach the foetus when the exposure to sodium hydrogencarbonate is sufficiently low, as it does not become systemically available.


STOT-single exposure:

Based on available data, the classification criteria are not met.

STOT-repeated exposure:

Based on available data, the classification criteria are not met.

Adequate repeated dose toxicity studies are not available and therefore a NOAEL or LOAEL has not been determined. None of the repeated dose studies were done in the rat, the species recommended, and the relevance of the results for humans is limited due to the way in which the studies were done. However, in humans there is a long history of sodium hydrogencarbonate use as an antacid in doses up to 4 g without adverse effects of long-term use, although it is recommended not to use high doses of pure sodium hydrogencarbonate instead of antacids (Gosselin, 1976; McEvoy, 1994).

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Sodium hydrogencarbonate is already recognised as 'GRAS' in food with no other limitation than current good manufacturing practice (FDA, 1983). In addition, sodium hydrogencarbonate is an important extracellular buffer in vertebrates and is therefore readily regulated in the body. Therefore, additional testing for repeated dose toxicity is not deemed necessary.

Furthermore sodium hydrogencarbonate is used as a food additive and also as a feed material in the EU which confirms that the substance has a low repeated dose toxicity. The Joint FAO/WHO Expert Committee on Food Additives considered it not necessary to derive an Acceptable Daily Intake (ADI) for the food additive sodium hydrogencarbonate (JECFA, 1965).

Aspiration hazard:

Based on available data, the classification criteria are not met.

Health effects of local exposure:

Inhalation: Irritating of mucous membranes and upper respiratory tracks, cough, irregular breath.

Eye contact: May cause slight irritation, tearing, stinging and redness.

Skin contact: May cause slight irritation, redness, pain, itching.

Ingestion: By bigger amounts intake vomiting, stomach ache, diarrhea, in drastic cases stomach disruption (CO₂ release) may occur.

SECTION 12: Ecological information

12.1. Toxicity

The lowest L(E)C₅₀ is >100 mg/l (48 h EC₅₀ study is 4100 mg/l for invertebrates (*Daphnia magna*)), and the lowest value for chronic toxicity is >0.1 mg/l (test 21 days NOEC is >576 mg/l for invertebrates (*Daphnia magna*)). Therefore, sodium bicarbonate should not be classified in accordance with Regulation (EC) No 1272/2008.

Acute toxicity to fish:

LC₅₀ (*Lepomis macrochirus*) 7100 mg/l/96 h (Machado, M.W., 1993b)

NOEC 5200 mg/l (Machado, M.W., 1993b)

Chronic toxicity to fish:


In accordance with section 1 of Annex XI of the REACH Regulation, the study does not need to be conducted. In the aquatic environment sodium hydrogencarbonate is dissociated. Both ions originally exist in nature, and their concentrations in surface water are dependent on various factors, such as geological parameters, weathering and human activities.

Acute toxicity to invertebrates:

LC₅₀ (*Daphnia magna*) 4100 mg/l/48 h (Putt, A.E., 1993)

Chronic toxicity to invertebrates:

NOEC (*Daphnia magna*) >576 mg/l/21 days (Leblanc and Surprenant, 1984)

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Algae and aquatic plants:

In accordance with section 1 of Annex XI of the REACH Regulation, the study does not need to be conducted. In the aquatic environment sodium hydrogencarbonate is dissociated. Both ions originally exist in nature, and their concentrations in surface water are dependent on various factors, such as geological parameters, weathering and human activities. Furthermore, hydrogencarbonate ions and sodium needed for algal growth.

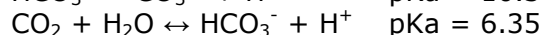
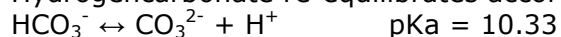
Toxicity to birds:

In accordance with section 1 of Annex XI of the REACH Regulation, the study does not need to be conducted.

12.2. Persistence and degradability

Sodium hydrogencarbonate is an inorganic substance, which cannot be oxidized or biodegraded by microorganisms.

In water, sodium hydrogencarbonate dissociates into sodium and hydrogencarbonate. Hydrogencarbonate re-equilibrates according to the following equations:



Only a small fraction of the dissolved CO_2 is present as H_2CO_3 , the major part is present as CO_2 . The amount of CO_2 in water is in equilibrium with the partial pressure of CO_2 in the atmosphere. The $\text{CO}_2 / \text{HCO}_3^- / \text{CO}_3^{2-}$ equilibriums are the major buffer of the pH of freshwater.

Degradation

Hydrolysis:

In accordance with section 1 of Annex XI of the REACH Regulation, the study does not need to be conducted as in water, sodium hydrogencarbonate quickly dissociates.

Biodegradation:

In accordance with section 2 of Annex XI of the REACH Regulation, the ready biodegradability test, the simulation test on ultimate degradation in surface water, the sediment simulation test and the soil simulation test are not need to be conducted as the substance is inorganic.

12.3. Bioaccumulative potential


In accordance with section 1 of Annex XI of the REACH Regulation, the study does not need to be conducted as sodium hydrogencarbonate is present in the environment as sodium and hydrogencarbonate ions, which implies that it will not accumulate in living tissues.

Octanol-water partition coefficient (K_{ow}): Not applicable (sodium hydrogencarbonate is a salt of an inorganic).

Bioconcentration factor (BCF): Not applicable (sodium hydrogencarbonate is a salt of an inorganic).

12.4. Mobility in soil

In accordance with section 1 of Annex XI of the REACH Regulation, the study does not need to be conducted as sodium hydrogencarbonate is present in the environment as sodium and hydrogencarbonate ions, which implies that it will not adsorb on particulate matter or surfaces.

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12.5. Results of PBT and vPvB assessment

The PBT or vPvB criteria of Annex XIII to the Regulation 1907/2008/EC does not apply to inorganic substances.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

During removal of waste comply with the regional / national laws.

Community legislation:

- Directive **2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
- European Parliament and Council Directive **94/62/EC** of 20 December 1994 on packaging and packaging waste as amended.

Disposal methods for the product: Don't introduce into the environment. Collect spilt substance to the containers. Reused or pass in a properly labeled containers for disposal to the qualifying company.

Disposal methods for used packing: Product and packaging disposed of as waste material; delivered to undertakings so authorized.

SECTION 14: Transport information

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)


Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Substance is not dangerous for the environment in accordance with the UN Model Regulations criteria.

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14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

The Chemical Safety Report has been completed. The substance does not pose a threat, as a basis for classification.

SECTION 16: Other information

Key to abbreviations and acronyms:

BLV - Biological limit values.

DNEL - Derived no-effect level.

LC₅₀ - Median lethal concentration.

LD₅₀ - Median lethal dose.


OECD - Organisation for Economic Co-operation and Development.

PNEC - Predicted No Effect Concentration.

STEL - Short-term exposure limit.

TWA - 8 hours time-weighted average.

Sources of key data: Producer SDS from 10 November 2011 (actualization).

	SAFETY DATA SHEET In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended	
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Training advice: Before use read the SDS.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are also treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above also of improper compliance with the law norms in the field.

The information contained in this SDS has been prepared by the manufacturer and verified by the ISOTOP s.c. Consulting Company from Gdańsk; **www.isotop.pl**; e-mail: **reach@isotop.pl**

This SDS replaces and annuls all the previous versions.

Version	Section(s)	Change(s)
1 (01.07.2013)	1.3	Producer and E-mail address
2 (16.10.2013)	headline	Document name
	16	Sources of key data and information regarding creator
3 (28.07.2014)	headline	Logo
	1.3	Name of the producer
	2.1, 3.1	Remove classification according to Directive 67/548/EEC
	2.1, 16	Remove information about R-phrases
	8.2.2	Added information about EN standards for personal protective equipment
4 (10.06.2015)	1.2	Relevant identified uses
	2.1	Removed group division of threats
	3.1	Change of concentration
	3.2	Section removed
	11.1	Remove information about Directive 67/548/EEC
	12.1	Added toxicity information
	14.7	Title name
	15.1	Update laws
	16	Remove "The full text of statements H under Sections 2 and 3" Sources of key data Change an information about performer
5 (01.12.2015)	1.1	Product identifier modified
	2.1	The names of hazardous ingredients on the label removed
	2.3	Information about other hazards changed
	10.6	Information about hazardous decomposition products actualized
	13.1	Waste code removed
	15.1	Legislation data actualized



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SAFETY DATA SHEET

In accordance with the criteria of Regulation No 1907/2006 (REACH)
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6 (02.03.2016)	1.1	Synonyms added
	1.2	Information on identified uses has been supplemented
	7.3	Changed record
	8.1	Legislation data actualized
	8.2.2	The record regarding the glove's breakthrough time was specified

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