

Safety Data Sheet

日本

1. Product and company identification

Product name Sodium Bicarbonate (NaHCO3), 8.8kg

Catalogue Number SH30173.07

Product type Powder. 7/27/2015 Original preparation date Date of issue/Date of revision 5/24/2019 Date of previous issue 10/31/2018

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

Not applicable.

Supplier / Manufacturer

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2. Hazards identification

GHS Classification Not classified

GHS label elements

Signal word No signal word.

Hazard statements No known significant effects or critical hazards.

Precautionary statements

General

Prevention Not applicable Response Not applicable. Not applicable. Storage Disposal Not applicable.

Other hazards which do not

result in classification

May form explosible dust-air mixture if dispersed.

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3. Composition/information on ingredients

Substance/mixture Substance

Other means of identification Not available.

CAS number/other identifiers

CAS number Not available.

ENCS number Not available.

ISHL number Not available.

Ingredient name%CAS numberENCSISHLsodium hydrogencarbonate100144-55-81-1641-164

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. First aid measures

Description of necessary first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

attention if symptoms occur.

Ingestion Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for

breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Get medical attention if symptoms occur.

Skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check

for and remove any contact lenses. Get medical attention if irritation occurs.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Exposure to airborne concentrations above statutory or recommended exposure limits may cause

irritation of the eyes

Inhalation Exposure to airborne concentrations above statutory or recommended exposure limits may cause

irritation of the nose, throat and lungs.

Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Short term exposure

Potential delayed effects Not available

Over-exposure signs/symptoms

Eye contact Adverse symptoms may include the following:

irritation

redness

Inhalation Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact No specific data.

Ingestion No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aidersNo action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

5. Fire-fighting measures

Extinguishing media

Suitable Use dry chemical powder.

Not suitable Avoid high pressure media which could cause the formation of a potentially explosible dust-air

mixture.

Specific hazards arising from

the chemical

May form explosible dust-air mixture if dispersed.

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Hazardous thermal decomposition products Decomposition products may include the following materials:

carbon dioxide carbon monoxide metal oxide/oxides

Special precautions for fire-

fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

Special protective equipment for fire-fighters

(SCBA) with a full face-piece operated in positive pressure mode

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders **Environmental precautions**

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways,

soil or air).

Methods and materials for containment and cleaning up

Small spill

Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Handling and storage 7。

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage

Store between the following temperatures: 15 to 30°C (59 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use

Exposure controls/personal protection 8。

Control parameters

Occupational exposure limits

Ingredient name None.

Exposure limits

Appropriate engineering

controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosionproof ventilation equipment.

Environmental exposure

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels

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Individual protection measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking Hygiene measures

and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure

that eyewash stations and safety showers are close to the workstation location

Eye/face protection Safety eyewear complying with an approved standard should be used when a risk assessment

indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations

to be produced, use dust goggles.

Skin protection

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all

times when handling chemical products if a risk assessment indicates this is necessary.

Personal protective equipment for the body should be selected based on the task being performed **Body protection**

and the risks involved and should be approved by a specialist before handling this product. Other skin protection Appropriate footwear and any additional skin protection measures should be selected based on the

task being performed and the risks involved and should be approved by a specialist before handling

this product.

Respiratory protection Based on the hazard and potential for exposure, select a respirator that meets the appropriate

standard or certification. Respirators must be used according to a respiratory protection program to

ensure proper fitting, training, and other important aspects of use.

9. Physical and chemical properties

Appearance

Physical state Solid. [Crystalline powder.]

Color Odor Not available. Odor threshold Not available рΗ Not available **Melting point** Not available. **Boiling point** Not available. Flash point Not available Fire point Not available. **Evaporation rate** Not available. Flammability (solid, gas) Not available.

Lower and upper explosive

(flammable) limits

Not available

Vapor pressure Not available. Vapor density Not available. Relative density Not available Solubility Not available. Solubility in water Not available Partition coefficient: n-octanol/ Not available.

Auto-ignition temperature Not available

SADT Not available. **Decomposition temperature** Not available Viscosity Not available. Flow time (ISO 2431) Not available **Burning time** Not available. Not available **Burning rate**

10. Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous

Conditions to avoid

Under normal conditions of storage and use, hazardous reactions will not occur.

reactions

Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate

static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

Article Number 29181688 Page: 4/9 **Incompatible materials** Reactive or incompatible with the following materials:

oxidizing materials

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name Result Species Dose Exposure

sodium hydrogencarbonate LD50 Oral Rat 4220 mg/kg

Irritation/Corrosion

Product/ingredient name Result Species Score Exposure Observation

Not available.

Sensitization

Product/ingredient name Route of exposure Species Result

Not available.

Mutagenicity

Product/ingredient name Test Experiment Result

Not available.

Carcinogenicity

Product/ingredient name Result Species Dose Exposure

Not available.

Reproductive toxicity

Product/ingredient name Maternal Fertility Development Species Dose Exposure

toxicity toxin

Not available.

Teratogenicity

Product/ingredient name Result Species Dose Exposure

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Not available.

Information on the likely routes Routes of entry anticipated: Oral, Dermal, Inhalation.

of exposure

Potential acute health effects

Inhalation Exposure to airborne concentrations above statutory or recommended exposure limits may cause

irritation of the nose, throat and lungs.

IngestionNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.

Exposure to airborne concentrations above statutory or recommended exposure limits may cause

irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact Adverse symptoms may include the following:

irritation

redness

Inhalation Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contactNo specific data.IngestionNo specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

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Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

Not available.

General Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name Oral (mg/ Dermal Inhalation Inhalation Inhalation (mg/kg) (gases) (vapors) (dusts and kg) mists) (mg/l) (ppm) (mg/l) 4220 Sodium Bicarbonate N/A N/A N/A N/A sodium hydrogencarbonate 4220 N/A N/A N/A N/A Other information Not available.

12. Ecological information

Toxicity

Product/ingredient name Result **Species Exposure** sodium hydrogencarbonate Acute EC50 650000 µg/l Fresh water Algae - Navicula seminulum 96 hours Acute LC50 767.87 mg/l Marine water Crustaceans - Americamysis bahia 48 hours Acute LC50 7550 ppm Fresh water Fish - Gambusia affinis - Adult 96 hours Chronic NOEC 576 mg/l Fresh water Daphnia - Daphnia magna - Neonate 3 weeks

Persistence/degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient Not available

(Koc)

name

MobilityNot available.Hazardous to the ozone layerNot applicable.

Other adverse effects No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimized wherever possible. Disposal of this product,

solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and

runoff and contact with soil, waterways, drains and sewers.

14. Transport information

UN IMDG IATA
UN number Not available. Not available. Not available.
UN proper shipping Not available. Not available. Not available.

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Transport hazard class Not available. (es)

Not available.

Not available.

Packing group

Environmental hazards No. No. No.

Additional information

Special precautions for user Transport within user's premises: always transport in closed containers that are upright and

secure. Ensure that persons transporting the product know what to do in the event of an accident or

spillage.

Transport in bulk according to Annex II of MARPOL and the

IBC Code

Not available.

Regulatory information

None of the components are listed.

Fire Service Law - Obstructive Not listed materials

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

<u>ISHL</u>

Use of specified chemical substances

None of the components are listed

Label requirements

None of the components are listed.

Chemicals requiring notification

None of the components are listed.

Carcinogen

None of the components are listed.

Mutagen

None of the components are listed.

Corrosive liquid Not listed ISHL Appendix 1 Not available. Lead regulation Not listed Not listed

Prevention of Tetraalkyl Lead

Poisoning

Not listed

Harmful Substances Subject to Obtaining Permission for

Manufacturing

Harmful Substances,

Dangerous Substances

Not listed

Prohibited for Manufacturing

Not listed

Organic solvents poisoning prevention

Not available.

Chemical Substances Control Law (CSCL)

None of the components are listed.

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Poisonous and Deleterious Substances

None of the components are listed.

Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

JSOH Carcinogen Not listed

Law Concerning Prevention of Pollution of the Ocean and

Maritime Disaster

Not available.

Road law Not available. List of Specially Controlled Not listed

Industrial Waste

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed

International lists

National inventory

Japan Japan inventory (ENCS): All components are listed or exempted.

Japan inventory (ISHL): All components are listed or exempted.

Europe All components are listed or exempted. **United States** All components are listed or exempted. Canada inventory All components are listed or exempted. China All components are listed or exempted.

Other information 16.

History

Date of printing 4/15/2020 Date of issue/Date of revision 5/24/2019 Date of previous issue 10/31/2018

Version

sds_author@cytiva.com ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by

the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available UN = United Nations

Procedure used to derive the classification

Classification Justification

Not classified.

References Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

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