Prepared April 18, 2024

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[Second Edition]

BIO SAN-EARTH BC1 Safety Data Sheet

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1.Chemicals and company information

Name of chemicals

Product name: BIO SAN-EARTH BC1

Supplier's name, address and telephone number

Company name Sankosha corporation

Address Osaki Wiz Tower 18th Floor, 2-11-1, Osaki, Shinagawa-ku, Tokyo 141-0032

Telephone Number 03-3491-2525 (Sales Division)

Contact https://www.sankosha.co.jp/contact-us/

RECOMMENDED USE AND LIMITATIONS ON USE

It is used as a material for reducing grounding resistance in grounding electrode burying work.

2.HAZARDS IDENTIFICATION

GHS categorization

PHYSICAL HAZARDS Cannot be classified

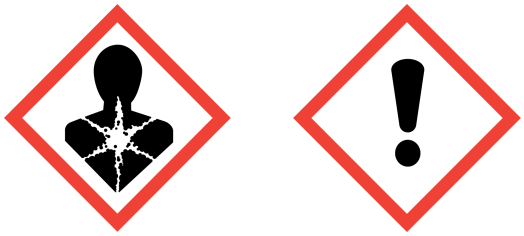
Health hazard SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Category 3 (Airway Irritation)

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): Category 1 (breathing apparatus)

Environmental Hazards Cannot be classified

GHS label elements

Pictogram or symbol



Signal	DANGER
Hazard statement	May cause respiratory irritation
	Respiratory failure due to prolonged or repeated exposure

Precautions

[Safety measures]	Do not inhale dust.
	Wash your hands and face after handling.
	Do not eat, drink, or smoke when using this product.
	Use only outdoors or in a well-ventilated area.
	Wear protective gloves, clothing, boots, goggles, protective surfaces and a dust mask.
[First Aid]	See section 4, Emergency Measures.
[Storage]	Refer to "7. Precautions for Handling and Storage."
[Disposal]	13.See "Precautions for Disposal"

Other hazards not related to or handled by GHS

It becomes alkaline (pH12～13) when it comes into contact with water. It is irritating to the eye, nose, and skin, and it may cause irritation to the mucosa of the eye, the inside tissue of the nose, and the skin.

Stimulates throat when swallowed.

Summary of important climates and possible emergencies

May cause respiratory irritation

Respiratory failure due to prolonged or repeated exposure

3.Composition/information on ingredients

Distinguishing Chemicals and Mixtures: Mixtures

Composition/information on ingredients

General name	Content [%]	CAS number
Carbon, including powdery or granular inert carbon produced from animals or plants, and activated carbon	30～40	7440-44-0
Portland cement (containing no asbestos and less than 1% crystalline silica)	60～70	65997-15-1

4.First Aid

First aid through exposure lines

If inhaled, immediately move to a place with fresh air, take a break in a breathable posture, and contact a doctor immediately.

If it adheres to the skin, it is quickly washed with water, and if necessary, it is subjected to medical treatment.

In case of contact with eyes, wash carefully with clean water immediately for 15 to 20 minutes. Immediately contact a doctor.

If drinking, wash the inside of the mouth well with water without forcing it, and then immediately contact a doctor.

Obtain doctor's diagnosis and hands when exposure or mood of exposure is poor.

In case of concern, contaminated clothes should be washed if reused.

Necessary precautions for the protection of persons taking first aid

The rescuer wears appropriate eye and skin protection according to the situation.

5.Fire-fighting measures

Suitable extinguishing media This product is a non-combustible material. All extinguishing agents may be used in case of fire in the surroundings.

Do Not Use

Keep in mind that water directly used in extinguishing products stabilizes and solidifies.

Specific fire extinguishing methods In principle, fire extinguishing activities should be performed from the windward side.

Restrict access to the area around the fire site by persons other than those concerned. If it is not dangerous, move the container from the fire area.

By fire-fighting operators

Special protective equipment and

Wear appropriate protective equipment and fireproof clothing when working on preventive measures.

6.Measures for Leakage

Precautions for human body, protective equipment and emergency measures

Forbid unauthorized people to enter the periphery of spill area.

Workers should wear appropriate protective equipment (see section 8 "Exposure Prevention and Protective Procedures") to avoid eye and skin contact and inhalation.

Environmental precautions

Avoid the release of products into the environment. Take measures to prevent concentrated wash water from flowing directly into rivers, etc., by neutralization, dilution treatment, etc. Avoid scattering of dust.

Methods and equipment for containment and purification

Collect as powder as possible with a vacuum cleaner, scoop, broom, etc., and store in a container until disposal. Those that are unavoidably left on the floor or other surfaces should be cleaned with water. Wash water is collected and appropriately treated by neutralization treatment, etc. Discard or drain the collected materials and the collected wash water according to "13.Precautions for Disposal".

7.HANDRING AND STORAGE

Handling

Technical measures The measures described in "8. Exposure prevention and protective measures" should be taken, and protective equipment should be worn as necessary.

Safe handling precautions When handling indoors, pay attention to ventilation. Handle with care to prevent the generation of dust.

Avoid contact Storage: Water, moisture, acid

In use: acid

Clean hands, face, mouth, etc. thoroughly after handling sanitary measures.

Do not eat, drink or smoke when using this product.

Storage

Install lighting and ventilation facilities necessary for storing and handling hazardous and hazardous materials in the storage area for technical measures.

Incompatible substance Acidic products. Water (because it is highly alkaline (pH:12～13) in contact with water)

Storage conditions Store in an acidic product, in a place where there is no risk of contact with water. Take measures to prevent the outsiders from touching.

Safe containers and packaging materials Use moisture-proof containers.

8.Exposure controls/Personal protection

Control density

Industrial Safety and Health Law and Standards for Evaluation of Working Environment 1.63mg/m3

※Calculated based on E = 3.0/ (1.19Q+1).

In this equation, E represents the control concentration (in mg/m3) and Q represents the free silicate (crystalline silica) content (in %) of the dust. Q was used for calculation by multiplying the maximum value, Q≒1%, in defining GHS categorization of Portland cement by the maximum value of the concentration-range of Portland cement.

Allowable Concentrations (Exposure Limits, Biological Indicators)

Japan Society for Occupational Health (2021) 1mg/m^3 (extractable dusts), 4mg/m^3 (total dusts) (secondary dust)

Equipment measures

If handled indoors, ventilation devices with sufficient capacity to reduce to the controlled concentration or lower shall be provided. A dust collector shall be installed when handling a large amount of dust.

Protective equipment

Respiratory protective equipment (e.g. respirator, dust mask) should be worn as needed.

Hand protective equipment, eyes and

Face protection Wear protective gloves if there is a risk of contact with the hands. Wear eye protection or goggles if there is a risk of getting into your eyes.

Skin and body protective equipment Wear protective clothing, aprons, etc. as necessary.

No special caution information

9.Physical and chemical properties

Physical state solid (powder)

Grey white

Odorless

Melting point and freezing point of about 1350℃

No information on boiling point, initial boiling point and boiling range

Flammable non-flammable

Lower Explosive Limit and Upper Explosive/Flammable Limit No Explosive Property

Flash point incombustibility

Spontaneous ignition point incombustibility

No decomposition temperature information

pH12～13 when contacted with pH

Not applicable to dynamic adhesion

React with solubility water

η-Octal/Water partition coefficient (log value) No information

No vapor pressure information

No density and/or relative density information

Relative gas density not applicable

No particle characteristic information

10.Stability and reactivity

Reactivity No dangerous reactions occur under normal conditions. Reacts with water and solidifies.

Chemical stability Stable under normal handling conditions.

Potential hazardous reactions No hazardous reactions occur under normal handling conditions.

Storage conditions to be avoided: Water, moisture, acid

In use: acid

Acidic products/water with incompatible hazardous substances (due to strong alkalinity (pH12～13) in contact with water)

Hazardous decomposition products Not applicable

11.Hazard information

Product hazard information

Acute toxicity (Oral)	Classification is not possible due to lack of data.
Acute toxicity (percutaneous)	Classification is not possible due to lack of data.
ACUTE TOXICITY(Gases)	Not applicable "Solids" according to GHS definition
ACUTE TOXICITY(Vapours)	Not applicable "Solids" according to GHS definition
Acute toxicity (inhalation: dust/mist)	Classification is not possible due to lack of data.

SKIN CORROSION/IRRITATION	Classification is not possible due to lack of data.
EYE DAMAGE	
Eye irritation	Classification is not possible due to lack of data.
Respiratory/Skin sensitization	Classification is not possible due to lack of data.
GERM CELL MUTAGENICITY	Classification is not possible due to lack of data.
Brittleness	Classification is not possible due to lack of data.

Epidemiological studies targeted concrete-and cement-handling workers and cement-factory workers that inhaled dust from Portland cement reported an increase in death rate due to pulmonary or other organ cancers (bladder, stomach, and colorectal cancers, etc.) or an increase in the standardized companion ratio (SIR). On the other hand, there were reports that there was no increase in the number of cancers associated with pulmonary and other organ cancers, and the results of analysis of the correlation between the frequency of cancers and the exposure concentration were generally lacking (ACGIH(7th,2010).

Since not all research reports have been evaluated with full elimination of the effects of smoking for respiratory cancers, ACGIH classifies this substance (ACGIH(7th,2010) as A4 (Portland cement with no asbestos and less than 1% crystalline silica) as inconsistent and poorly proven to classify as A3.

In addition, no other international organization has conducted a cancerous assessment. Based on the above, this section was deemed "impossible to classify" due to lack of data.

Reproductive toxicity	Classification is not possible due to lack of data.
SPECIFIC TARGET ORGAN TOXICITY	Category 3 (respiratory tract irritation)
(Single exposure)	Based on the fact that the allowable concentration (TLV-TWA=1mg/m^3) by ACGIH was set from the viewpoint of preventing respiratory effects such as respiratory symptom and pulmonary function deterioration when Portland cement is inhaled as inhaled dust, it is considered appropriate to use Category 3 (airway irritation).
SPECIFIC TARGET ORGAN TOXICITY	Category 1 (breathing apparatus)
(repeated exposure)	When Portland cement is inhaled for a long time, although the development of pneumoconiosis is not clear, there are several reports of respiratory illness such as chronic bronchial inflammation and asthma (ACHIH(7th,2010), DFGOTvol.11(1998), and therefore Category 1 (respiratory apparatus) is considered appropriate.
Erroneous hazard	Classification is not possible due to lack of data.

12.Ecological information

Information on the environmental impact of products

No ecotoxicity information

No residual or degradable information

No bioaccumulative information

No mobility information in soil

Hazardous substances to the ozone layer are not listed in the Annex of the Montreal Protocol.

13.Disposal Precautions

Information on the safe and environmentally desirable disposal or recycling of chemicals (residual waste), contaminated containers and packaging to which such chemicals are attached

When disposing, be careful not to dispose of dust in the surrounding environment.

Residual Wastage

After solidification, discard in accordance with the Waste Disposal and Cleaning Law.

Drainage of cleaning water, etc., shall be carefully considered to conform to the relevant laws and regulations such as the Water Pollution Control Law.

When outsourcing the disposal, etc. to an outside contractor, the industrial waste management table (manifest) shall be issued to the industrial waste disposal contractor who has obtained the permission of the governor of the prefecture, etc. and properly disposed of in compliance with the related laws and regulations.

Container and Package

Containers shall be disposed of in accordance with the Waste Disposal and Cleaning Law.

14.Transportation Precautions

International regulations

Land transportation (in accordance with ADR/RID regulations)

Not applicable to UN number

Product name (UN transport name) Not applicable

UN Classification (hazard class for transportation) Not applicable

Not applicable to secondary hazards

Not applicable to container grade

Maritime transportation (in accordance with the provisions of IMO)

Not applicable to UN number

Product name (UN transport name) Not applicable

UN Classification (hazard class for transportation) Not applicable

Not applicable to secondary hazards

Not applicable to container grade

Marine pollutants (applicable/not applicable) Not applicable

IBC code (applicable/not applicable) Not applicable

Air transportation (in accordance with ICAO/IATA regulations)

Not applicable to UN number

Product name (UN transport name) Not applicable

UN Classification (hazard class for transportation) Not applicable

Not applicable to secondary hazards

Not applicable to container grade

Regulatory Information Where Domestic Regulations Exist

Land-based regulatory information not applicable

Not applicable to marine regulatory information

Not applicable to marine pollutants

Not applicable to aviation regulation information

Special safety measures for transport or mode of transport

To transport in a manner free from dust.

To ensure the prevention of breakage of bags, damage, leakage from containers, collapse of cargo, etc.

Be careful not to get wet or wet.

15.Applicable laws

Name of the applicable law and information on regulations based on the law

Not applicable to the Chemical Substance Emission Assessment and Control Promotion Law

Not applicable to the Labor Standards Law

Industrial Safety and Health Law Working Environment Evaluation Standard (Dust from debris, rocks, minerals, metals or carbon)

Ordinance on Prevention of Hazards Due to Dust

Not applicable to Poisonous and Deleterious Substances Control Act

Names of other applicable laws and regulations based on those laws

In the review and manufacture of chemical substances

Law Concerning Regulations (Chemical Substances Control Law) Not applicable

Dusty Work in Appended Table of Article 2 and 2 of Enforcement Regulations of the Pneumoconiosis Law

Not applicable to air pollution control law

Not applicable to Water Pollution Control Law

Not applicable to City Water Law

Not applicable to marine pollution control law

Not applicable to the Fire Defense Law

Not applicable to the Ship Safety Law

Not applicable to aeronautical laws

16.Other information

References

List of NITE GHS Classifications (2021)

Recommendations of the Japan Society of Industrial Sanitation (2021) Allowable Concentrations, etc.

Modeling SDS of the various chemicals at the workplace safety site

ACGIH,American Conference of Governmental Industrial Hygienists(2021)

TLVs and BEIs.

[Caution]

This SDS has been prepared in accordance with JIS Z 7253:2019"GHS Procedure for Transferring Hazardous Information on Chemicals-Labeling, Labeling on the Workplace and Safety Data Sheet (SDS). To ensure the safe handling of our products, we provide the information we have at the moment to dealers. The contents of this manual have been prepared based on materials currently available, information, data, etc., and are subject to revision due to new knowledge. This SDS does not necessarily guarantee the safety of the product. There are risks and hazards that we do not have knowledge of. Therefore, the dealer is requested to take safety measures according to the actual conditions of individual handling, application, usage, etc. as a reference, and handle it.

More than