

**QINGDAO EASTCHEM INC**

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# Material Safety Data Sheet

No.: EC-01

## 1. Product and Company Identification

Product name: Diatomite

RTECS: HL 8600000

CAS: 61790-53-2

Supplier: QINGDAO EASTCHEM INC

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## 2. Hazards information

GHS classification

Physical and chemical hazards: Outside of division, not subject to classification or not classifiable

Health hazards: Outside of division, not subject to classification or not classifiable

☹\* Hazard information

Carcinogenicity: Outside of division (IARC classification is Group 3.)

Specific target organ toxicity (repeated exposure): Not classifiable (If inhaled for a long period or repeatedly, lung may be damaged.)

Environmental hazards: Not

classifiable Labeling:

*f* Pictorial indication or symbol: Not required*f* Warning words: Not required*f* Hazard information: If inhaled for a long period or repeatedly, lung may be damaged.

## 3. Composition and ingredients

Substance or mixture composition: Substance

Generic name: Diatomaceous earth (flux-calcined)

Component and content: Flux-calcined diatomaceous earth 100%

Chemical property: Main elements of diatomaceous earth are O, Si, Al and Fe.

Pure diatom frustules consist of amorphous silica (silicon dioxide), but diatomaceous earth is a mineral and may contain several percent of natural amorphous silica. When diatomaceous earth is calcined, part of amorphous silica, which constitutes diatom frustules, may crystallize.

CAS No.: Diatomaceous earth (flux-calcined) 68855-54-9 (3\*1)

Reference Number in Gazettes List in Japan (Chemical Substance Control Law / Industrial Safety and Health Act): Not applicable

Chemical Substance Management Law: Not applicable

TSCA: Already existing as diatomaceous earth (flux-calcined) (3\*1)

EINECS: Diatomaceous earth (flux-calcined) 272-489-0 (3\*1)

Inventory of Existing Chemical Substances:in China Contained as diatomaceous earth (flux-calcined) (3\*2) Korean Existing Chemicals List: Diatomaceous earth (flux-calcined) KE-21796 (\*33)

#### **4. First aid measures**

Inhalation: In case of inhaling the material, breathe in fresh air, blow nose and gargle throat to exhaust powder dust.

Skin contact: If touched the material, flush skin with water and then wash with soap water well.

Eye contact: If the material gets into eyes, do not rub them or close firmly. Flush eyes with plenty of clean flowing water.

Ingestion: If swallowed accidentally, wash the inside of mouth with water.

#### **5. Fire fighting measures**

Extinguishing agents: Incombustible

Specific firefighting: Incombustible

#### **6. Measures taken in case of accidental release**

Cautions for personnel: Wear a dust mask not to inhale powder dust during work.

Removal method: Use a vacuum cleaner to suck the material or sweep it into a container while taking care not to stir up dust (by sprinkling water).

#### **7. Precautions for handling and storage**

Handling: Be careful not to damage the container. Install a booth or local exhaust equipment provided with a hood in a place where dust is generated. In addition, wear protective gear such as a dust mask and goggles.

Storage: Keep away the material from water, moisture and contaminants.

## 8. Exposure prevention and protective measures

Measures by equipment: Use local exhaust equipment during work wherever possible.  
Control concentration: Type and name of material; soil and stone, rock, mineral, metal or carbon dust

$$E = \frac{3.0^{(*5)}}{1.19 \times Q + 1}$$

E: Administrative control level [mg/m<sup>3</sup>], Q: Content [%] of free silicic acid (crystalline silica) in relevant dust

Permissible exposure level:

	ACGIH; TLV-TWA(*7)	OSHA; PEL Upper row: respirable dust Lower row: total dust (*8)
	mg/m <sup>3</sup>	mg/m <sup>3</sup>
Diatomaceous earth	--	(Amorphous silica containing natural diatomaceous earth) <hr/> 5K1
(for reference) Quartz	0.025	<hr/> 5K1
(Respirable crystalline silica)		<hr/> 5K1
(for reference) Cristobalite	0.025	<hr/> 5K1
(Respirable crystalline silica)		<hr/> 5K1

Protective gear: Respiratory protective gear; Be sure to wear a respirator during work in dusty environment.

Protective eyeglasses: It is advised to wear dustproof goggles.

Protective gloves: It is advised to wear dust proof gloves.

## 9. Physical and chemical properties

External appearance: White powder

Odor: No odor

pH: 8 - 11 (5 - 10 for Dx-W50)

Melting point/coagulation point [° C]: No data

Boiling point, initial boiling point and boiling range [° C]: No data

Flash point: [° C]: Incombustible

Ignition point [° C]: None

Flammability: None

Explosion limit [%]: None

Steam pressure: None

Specific gravity: 2.3

Solubility: Solubility in solvent; Almost insoluble in water Slightly soluble in strong acid and caustic alkali solvent (3\*9)

## 10. Stability and reactivity

Stability/reactivity: Stable under normal handling conditions

Materials to be avoided: hydrofluoric acid and caustic alkali

## 11. Toxicological information

Acute toxicity: No data

Chronic toxicity/long-term toxicity: If a person inhales the material dust in a large amount for a long period, pneumoconiosis may be caused. (\*4)

Carcinogenicity: IARC classified Diatomite, Diatomaceous earth(uncalcined), and Diatomaceous earth(flux-calcined) as amorphous silica into group 3 “Not classifiable as to carcinogenicity to humans” , As for crystalline silica, IARC classified it into group 1 “There is sufficient evidence in humans for carcinogenicity of inhaled quartz or cristobalite from occupational sources” .(\*10)

## 12. Environmental impact

No information available

## 13. Precautions for disposal

Observe the ordinances in the respective areas (landfill, etc.)

## 14. Precautions for transportation

UN classification and number: None

Specific safety measures and conditions for transportation: Keep away the material from water, moisture and contaminants

## 15. Applicable laws and regulations

Food Sanitation Act            Section for food additives

Industrial Safety and Health Law            Ordinance on Prevention of Hazards due to Dust (however, limited to the works listed on Appendix 1, Article 2)

Pneumoconiosis Act	Ordinance for Enforcement of Pneumoconiosis Act (however, limited to the works Article 2 applies)
Working Environment Measurement Act	(however, limited to the works, to which Article 25 of the ordinance on Prevention of Hazards due to Dust applies)

## 16. Other information

References cited:

“Guideline for Preparation of Material Safety Data Sheet” , Rev. 2, May 2006, Japan Chemical Industry Association

(3\*1): “Inspection Data for Safety of Existing Chemical Materials” , National Institute of Technology and Evaluation, Chemical Risk Information Platform (CHRIP)

URL: <http://www.safe.nite.go.jp/japan/db.html>

(3\*2): China Chemical Registration Center - State Environmental Protection Administration

URL: <http://www.crc-sepa.org.cn>

(3\*3): Korea National Institute for Environmental Studies

(3\*4): New version “Prevention of Diseases Caused by Dust” , Japan Industrial Safety and Health Association

(3\*5): “Standards for Assessment of Work Environment” (Notification No.195 by the Ministry of Health, Labor and Welfare, March 31, 2009)

(3\*6): Recommended values for 2008-2009 by the Japan Society for Occupational Health

(\*37): American Conference of Governmental Industrial Hygienists (ACGIH), “Advised Allowable Concentration for Work Environment” 2008 TLVs and BEIs

(Quoted from “Chemical Risk Information Platform (CHRIP)” , the National Institute of Technology and Evaluation

(\*38): Code of Federal Regulations 29CFR1910/1000

(\*39): Filtration “Mechanism and Filter Media/Filter Aid” issued by Chijinshokan

(3\*10): IARC Monographs Volume 68 (1997)

URL:<http://monographs.iarc.fr/ENG/Monographs/vol68/index.php>