
1. Product and Company Identification

Product Name:	GRAVIO EDGE
[Product Overview]:	This product is a decorative paneling for interior walls that is made of rock wool and shirasu balloons (volcanic vitreous material) as its main ingredients, formed with binding and mixing agents. Certified by Japan Ministry of Transport as Non-combustible Material NM-4565
SDS Reference Number :	WFG 010-DA
Company Name:	DAIKEN Corporation
Address:	2-5-8, Kaigandori, Minami-ku Okayama, 702-8045 Japan
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2. Summary of Danger and Toxicity

[When handling without performing processing]

Under normal handling, this product is a solid; thus, it is not subject to GHS classification, and is not toxic.

[When processing]

GHS classification: Classified as a dust generating product, as follows.

[Health Hazards]

- Carcinogenic: Category 1A
- Germ cell mutagenicity: Category 2
- Specific target organ toxicity (Single exposure): Category 3 (respiratory tract irritation)
- Specific target organ toxicity (Repeated exposure): Category 1 (respiratory system, kidneys, immune system)

GHS label elements: *Though not classified as a molded article, caution is necessary when dust is generated.

GHS pictogram



Danger

[Signal word]

[Danger and Toxicity Information]

Risk of causing cancer

Organs affected: Harmful to respiratory system

Repeated/long-term exposure harmful to respiratory system, kidneys, and immune system

There is a risk that dust generated when cutting the product will cause irritation to the skin, and damage to the cornea of the eyes.

In addition, there is a risk that inhalation of a large amount of the dust over a prolonged period may adversely affect the respiratory system.

[Precautionary statement.]

Wear long sleeved and long-legged work clothes, protective gloves (with a cuff, etc.) when handling this product.

Dust is generated when cutting or sawing this product, so personnel engaged in cutting work should wear a protective mask and protective glasses.

(Note that the amount of inhalable dust generated under normal handling of this product when not carrying out processing is minuscule.)

Do not eat, drink, or smoke when processing this product or working with it in carrying out construction.

Be sure to thoroughly wash your hands after handling.

3. Composition and Information on Ingredients

DAIKEN Corporation
Safety Data Sheet

Product Group Name: Dai-Lite
 SDS Reference Number: WFG 010USA-DA
 Date: April 1, 2018
 Revised: March 28, 2024

Chemical substance/mixture distinction: Mixture (We have categorized this product as a molded product that generates dust when cut, etc.)

Chemical name or general name: Dai-Lite

Ingredients and proportions: See Tables below

	Material Composition	Main Chemical Ingredients	Proportion Contained (%)
Surface material	Acrylic resin paint	Acrylic resin, etc.	0.7 - 1.3
		Calcium carbonate, silica, etc.	1.6 - 1.8
Base material	Rock wool granular cotton	Artificial mineral fibers	29 - 36
	Shirasu balloons	Formed of amorphous glass	14 - 18
	Inorganic powder	Aluminum hydroxide, calcium carbonate, etc.	34 - 40
	Organic binding agent	Phenol resin, etc.	10 - 12

	CAS Number (General number used for identifying chemical substance)	Proportion Contained (%)	Substance Requiring Industrial Safety and Health Act ¹⁾ Notice	Pollutant Release and Transfer Register (PRTR) Law ²⁾	Poisonous and Deleterious Substances Control Law ³⁾
Quartz (crystalline silica)	14808-60-7	< 1	165-2	N/A	N/A
Titanium oxide (IV)	13463-67-7	< 0.5	191	N/A	N/A
Aluminum oxide	1344-28-1	< 4	189	N/A	N/A

1) Industrial Safety and Health Law, 2) Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

3) Poisonous and Deleterious Substances Control Law

4. First-Aid Measures

Inhalation First Aid: Gargle with water or warm water, and blow nose to clear dusts and fibers from throat and nose. If necessary, consult a physician.

Skin Contact First Aid: Remove contaminated clothing, and wash skin under running water without scratching. If necessary, consult a physician.

Eye Contact First Aid: Immediately flush with clean water for at least 15 minutes, without rubbing the eyes. If necessary, consult a physician.

Ingestion First Aid: Gargle. If necessary, consult a physician.

Protection for Personnel Performing First Aid: None

5. Fire-Fighting Measures

Suitable Extinguishing Media: Water, powder, foam

Extinguishing Media Which Must Not Be Used: No information at present.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: None

Environment precautions: None

Methods and materials for neutralization containment and cleaning up: Vacuum up any dust generated by processing with a vacuum cleaner, and wipe off the equipment with a damp mop. When a large amount of dust has been generated, sprinkle water to prevent diffusion of the dust.

Preventive measures for secondary accidents: None

7. Handling and Storage

Handling: Wear long sleeved and long-legged work clothes, protective gloves (with a cuff, etc.) when handling this product.

Dust is generated when cutting or sawing this product, so personnel engaged in cutting work should wear protective glasses or goggles. (Note that the amount of inhalable dust generated under normal handling of this product when not carrying out processing is minuscule.)

Storage

Appropriate storage conditions: Store in a cool dry place away from direct sunlight.

Safety packaging material/packaging container: Not required

8. Exposure Controls and Personal Protection

Equipment and Work Practices:

When sawing or cutting, it is desirable that local ventilation equipment (dust collectors, etc.) is used.

Control value:

For dust generated during sawing or cutting, the Assessment Criteria of Working Environment (1988 Ministry of Labor, Notification No.79, latest revision 2020)

Sets value for dust from soil, stone, mineral, metal or carbon at

$$E = 3.0 / (1.19 \times Q + 1)$$

E: Control value (mg/m³), Q: Silica content in the dust (%)

Adopted value:

For dust,

Japan Society for Occupational Health (2021):

For mineral dust, a crystalline silica content of less than 3%,

Adopted value for inhalable dust 1 mg/m³

Adopted value for total dust 4 mg/m³

ACG1H (2014) includes no data on adopted values for mixtures.

Adopted values for individual ingredients are as follows.

(A) Rock wool fibers: TWA 1 fiber/cm³ (Respirable)

(B) Fused silica: TWA 0.1 mg/m³ (Respirable)

Personal protective equipment (during sawing/cutting)

Respiratory protection:

Use adequate general or local exhaust ventilation to maintain concentrations in the workplace below the applicable exposure limits listed above. Refer to OSHA Standards 29CFR1910.1053, 1915.1053 and 1926.1053 for additional information.

When the control value for the work environment may exceed the above-described criteria, wear a dust protective face mask.

Hand protection:

Wear protective gloves.

Eye protection:

Wear goggles or protective glasses with side shields.

Skin and body protection:

Wear long sleeved and long-legged work clothes.

9. Physical and Chemical Properties

Physical state:

Solid

Color:

Base material color light brown

Odor:

Slight, peculiar odor (non-irritating odor)

Boiling point or initial boiling point and boiling point range:

No data

Combustibility:

No data

Explosion lower limit and explosion upper limit/inflammability limit:

No data

Flashpoint:

No data

Auto-ignition point:

No data

Resolution temperature:

No data

pH:

Because it is a solid at room temperature, there is no data.

Kinematic viscosity:

Because it is a solid at room temperature, there is no data.

Vapor pressure:

Because it is a solid at room temperature, there is no data.

Density and relative density:

0.85

Relative gas density:

Because it is a solid at room temperature, there is no data.

Particle properties:

Because it is a solid at room temperature, there is no data.

10. Stability and Reactivity:

Reactivity

No data

Chemical stability:

Stable

Incompatible materials:

No data

Conditions to avoid:

No data

Materials to avoid:

Strong acids and strong bases

Hazardous decomposition products: No data
Possibility of hazardous reactions: No data

11. Toxicological Information

< Information on rock wool granular cotton >

Acute toxicity: No information at present.
Skin corrosiveness/irritation: Prolonged exposure may cause skin irritation or rash.
Serious eye damage/eye irritation: Contact may be irritating to eyes. May cause redness, stinging, swelling, and tearing.
NITE-CHRIP Synthetic mineral fiber (excluding RCF) H29-B-087; 2017
Respiratory or skin sensitization: Dust can irritate the throat and lungs. Prolonged exposure may cause lung disease.
Ingestion: Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath.

Germ cell mutagenicity: No information at present.
Carcinogenicity: The following information is available regarding the ingredient rock wool.
International Agency for Research on Cancer (IARC): Group 3 (not classifiable as to its carcinogenicity to humans)
Reproductive toxicity: No information at present.
Specific target organ toxicity (Single exposure): No information at present.
Specific target organ toxicity (Repeated exposure): There is a risk that prolonged inhalation of a large amount of the "particles" generated during cutting, etc., will have an adverse effect on the respiratory system.
NITE-CHRIP Synthetic mineral fiber (excluding RCF) H29-B-087; 2017
Aspiration hazard: No information at present.

< Information on crystalline silica >

Carcinogenicity: GHS classification Category 1A
IARC Group 1 (Carcinogenic to humans.)
Germ cell mutagenicity: GHS classification Category 2
Specific target organ toxicity (Repeated exposure): GHS classification Category 1 (respiratory system, kidneys, immune system)
Other toxicity: Insufficient information to enable classification, or not applicable

< Information on titanium oxide >

Carcinogenicity: GHS classification Category 2
IARC Group 2B (possibly carcinogenic to humans)
Specific target organ toxicity (Repeated exposure): GHS classification Category 1 (respiratory system).
No data available on humans.
As for experimental animals, in a 2-year study using rats to test inhalation toxicity, increases in leukocyte and neutrophil counts, and an increase in pneumonia, tracheitis, and rhinitis with squamous metaplasia in the anterior nasal cavity were observed at 10 mg/m³, which is in the range of Category 1, and in a 24-month inhalation toxicity study using rats, lung fibrosis, minor changes in cytologic pattern in b leukocyte count, increase in macrophage and hyperplasia of the long-associated lymph nodes were observed at 5 mg/m³ (SIDS (2015)).
Other toxicity: Not classifiable due to lack of data, or no applicable category

DAIKEN Corporation
Safety Data Sheet

Product Group Name: Dai-Lite
SDS Reference Number: WFG 010USA-DA
Date: April 1, 2018
Revised: March 28, 2024

5 / 6

<Information on aluminum oxide>

Specific target organ toxicity (Single exposure): GHS classification Category 3 (respiratory tract irritation)
Specific target organ toxicity (Repeated exposure): GHS classification Category 1 (lungs)
Other toxicity information: Not classifiable due to lack of data, or no applicable category

12. Ecological Information

Ecotoxicity: No information at present.
Persistence/degradability: No information at present.
Bioaccumulation: No information at present.
Mobility in soil: No information at present.
Hazard to the aquatic environment/short term (Acute): No information at present.
Hazard to the aquatic environment/long term (Chronic): No information at present.
Hazard to the ozone layer: No information at present.

13. Disposal Considerations

Residual waste: Hire a company licensed based on the "Waste Disposal and Public Cleansing Law" to handle residual waste.

14. Transport Information

UN Classification/UN Number: The UN classification criteria are not applicable to this reference material.
Domestic restrictions: None
Specific precautionary transport measures and conditions: When transporting, stack in a uniform manner. Be careful that there is no water leakage.

15. Regulatory Information

Waste Disposal and Public Cleansing Law: Not applicable
Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law) Not applicable
TSCA Status: Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-607.

RCRA: This product is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

CERCLA: Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

Emergency Planning and Community Right to Know Act (SARA Title III): This product contains the following chemicals subject to SARA 302 or SARA 313 reporting: None above the de minimus concentrations.

Clean Air Act: Crystalline silica (quartz) mined and processed by U.S. Silica Company is not processed with or does not contain any Class I or Class II ozone depleting substances.

FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

California Proposition 65: Crystalline silica (airborne particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.

16. Other Information

Formaldehyde emissions category: Notification not required (not a material subject to the regulations)
Asbestos content: None

The information described in this document is not intended to be exhaustive. It is based on data currently available publicly and data compiled by our company, and is not intended to guarantee anything. The health and safety precautions

DAIKEN Corporation
Safety Data Sheet

Product Group Name: Dai-Lite
SDS Reference Number: WFG 010USA-DA
Date: April 1, 2018
Revised: March 28, 2024

6 / 6

described in this document do not represent a comprehensive coverage of all aspects of environmental, health and safety impacts to all people, and because there is a possibility of unknown hazardous substances being contained in all ingredients, it is necessary to exercise sufficient caution when handling this reference material. When using this product, be sure to follow all applicable regulations, make reference to this SDS and responsibly implement safe usage conditions, and when new information is obtained, to safely use this product according to the content of the new information.
