

NIPPON SHEET GLASS CO., LTD.
NGF Company.

MATERIAL SAFETY DATA SHEET(MSDS)*

Manufacturer's Information Manufacturer: Nippon Sheet Glass Co., Ltd.
NGF Company
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Product Name (Trade Name) Microglas FLEKA
TYPE: REFG-101, REFG-301

Identification of the substance

Chemical name :Glass Flake (Glass)

Ingredients :

Glass Flake > 99%

Sizing Agent < 1%

Composition consisting principally of oxides of silicon, aluminum, calcium, boron, magnesium and alkali fused in an amorphous vitreous state.

EINCS NO :266-046-0

CAS NO :65997-17-3

TSCA NO :65997-17-3

Hazards identification

Classification :NA

Hazards : None

Harmful :None

Environmental effect :None known

Emergency and first aid procedures

Eye(s) contact :Flush with clear water for at least 15 minutes. Seek medical attention for prolonged pain.

Skin contact :Rinse contacted areas with room temperature to cool water, then wash gently with mild soap. If Glass Flake becomes embedded, seek medical

attention

- Inhalation :Rinse out your mouth with water about 10 times. Also, blow your nose lightly. If itching or pain persists in your nose or throat, consult physician.
- Swallowing :First induce vomiting to get rid of it, Then rinse your mouth with water. If you fail to vomiting it up, consult physician.
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Fire fighting procedures

- Extinguish method :Usual fire fighting
- Extinguish media : Water, CO2, Foam, Dry powder
- Others : Though glass flakes are nonflammable, most of sizing agents or surface treatment agents coated on flakes are flammable, keep away fire as soon as possible.
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Spill and leak procedures

- Steps to be taken if material is released or spilled
:Sweep or vacuum up it quickly and carefully to prevent dust from scattering and treat as an inert solid waste..
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Handling and storage

- Handling :Do not inhale glass flake or cause it to come in contact on your eyes or skin. Wear the protective gloves, glasses (preferable goggle type) and dust respirator (officially approved replacement or disposable type).
- Storage: Materials should be stored in its original packaging in a clean, dry area, away from direct sunlight, high temperature or high humidity.
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Exposure controls and personal protection

- Glass fiber dust : TLV(R) 5mg/m³ [ACGIH(1997)]
OSHA PEL (8Hr.TWA) None established
(5mg/m³ respirable nuisance dust)
- Respiratory protection : If glass flake dust level are high, respiratory protection for nuisance dust should be provided.
- Ventilation : Mechanical, general, or local exhaust may be required in some operations.
- Eye protection :Wear safety glasses with side shields if necessary.
- Hand protection :Wear protective gloves such as leather ones. May reduce skin irritation in some operations.
- Protective Clothing :Use of long sleeved shirts, buttoned to fit at the neck and wrists, long pants, and good personnel hygiene will maximize comfort.
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Physical and chemical properties

Appearance and odor :White to off white solid / No odor
Boiling point (centi-degrees) :NA
Vapor pressure (mm Hg) :NA
Volatile by volume : NA
Melting point(centi-degrees) :NA (Softening point :Approx. 840 centi-degrees)
Specific gravity (at 25 centi-degrees) : Approx. 2.6
Solubility in water :Nil
Vapor density (air = 1) :NA

Stability and reactivity (fire and explosion hazard data)

Flash point :NA
Flammability limits:
LEL :NA UEL :NA
Auto ignition temperature :NA
Oxidizing :NA
Self reactivity/explosion :NA
Usual fire and explosion hazards :None
Stability (condition to avoid) :Stable (None)
Incompatibility (material to avoid) :None
Hazardous decomposition products: Sizing or binders may decompose in a fire. Primary combustion products are carbon monoxide, carbon dioxide and water.
Hazardous polymerization :Will not occur

Toxicological information

Corrosive for skin : None
Irritation (skin, eye) : Unlikely to occur, direct contact will cause mechanical irritation.
Sensitization : None
Acute toxicity (LD50 and others) : None
Sub-acute toxicity : None
Carcinogenicity : The International Agency for Research on Cancer (IARC) has designated continuous filament fiberglass as a group 3, "not classifiable as to human carcinogenicity".
Mutagenic : None
Reproductive toxicity : None
Teratogenic : None
Others : None

Ecological information

Degradability : None
Accumulativeness : None
Aquatic toxicity : None
Others : None

Disposal information

Disposal procedures for solid waste in accordance with local, state, and federal regulations.

Transport information

None. Avoid wetting or other careless handling to maintain product quality.

Regulatory information

None known.

Other information

This information is based on our current level of knowledge, related to the product in the state in which it is delivered.

It is intended to describe our products from the point of view of safety requirement and is not intended to guarantee any particular properties.
