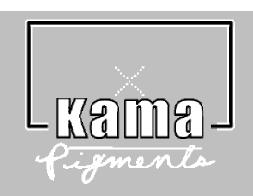
Safety Data Sheets

Natural Mica Perlescent Pigment - Flash

Product code: PM-000045 Department: mica dry pigments C.A.S.: 12001-26-2, 13463-67-7



Section: 1 Identification

Product name Mica flash, Perlescent Pigment

material use coloring material

Section: 2 Hazard Identification

GHS-Labeling Not a dangerous substance according to GHS.

Other hazards None known

HGS Label Elements

Signal Word

GHS Classification

The product does not require a hazard warning label in accordance with GHS criteria.

Hazard statements

No known significant effects or critical hazards.

Precautionary Statements

Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P281 Use personal protective equipment as required.

P391 Collect spillage.

P403 + 233 Store in a well-ventilated place. Keep container tightly closed.

Section: 3 Composition / Information on Ingredients

Chemical nature Mica coated with titanium dioxide and ferric oxide

Hazardous ingredients

CAS-No. Chemical Name Concentration

 12001-26-2
 mica (muscovite)
 >= 50 % - < 70 %

 13463-67-7
 titanium(IV) oxide
 >= 30 % - < 50 %

Exact percentages are being withheld as a trade secret.

Section: 4 First Aid Measures

Description of first-aid measures

Inhalation

After inhalation

fresh air.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse

skin with water/ shower.

Eye contact

After eye contact:

rinse out with plenty of water.

Ingestion

After swallowing:

make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects

both acute and delayed:

We have no description of any toxic symptoms.

Indication of any immediate medical

attention and special treatment needed:

No information available

Section: 5 Fire Fighting Measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances

and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are

given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Section: 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel:

Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures,

consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

Environmental precautions

No special precautionary measures necessary.

Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Section: 7 Handling And Storage

Precautions for safe handling:

Observe label precautions.

Conditions for safe storage: Storage temperature: Tightly closed. Dry. no restrictions.

Section: 8 Exposure Control/Personal Protection

Exposure limit(s) Ingredients

Remarks **Basis** Value Threshold limits

General threshold limit value for dust

Z₁A Time Weighted Average 5 mg/m³ Form of exposure: Respirable

fraction.

Form of exposure: Total dust.

(TWA)

Time Weighted Average: 15 mg/m³ Form of exposure: Total dust.

(TWA)

Time Weighted Average: 50millions of particles

(TWA) per cubic foot of air

Time Weighted Average: 15millions of particles Form of exposure: respirable fraction.

(TWA) per cubic foot of air

OSHA TRANS PEL 5 mg/m³ Form of exposure: Respirable

fraction.

PEL 15 mg/m³ Form of exposure: Total dust.

ACGIH Form of exposure: Inhalable Time Weighted Average 10 mg/m³

particles.

(TWA)

Time Weighted Average: 3 mg/m³ Form of exposure: Respirable

particles.

mica (muscovite) 12001-26-2

ACGIH Time Weighted Average 3 mg/m³ Form of exposure: Respirable

fraction.

Form of exposure: respirable.

Form of exposure: respirable dust.

Form of exposure: Dust and fume.

Expressed as: as Fe

Form of exposure: fume.

Expressed as: as Fe

(TWA)

NIOSH/GUIDE Recommended exposure limit

(REL)

(TWA)

Z₁A Time Weighted Average 3 mg/m³ Form of exposure: respirable dust.

3 mg/m³

(TWA)

Time Weighted Average 20 millions of particles

(TWA) per cubic foot of air

titanium(IV) oxide 13463-67-7

ACGIH Time Weighted Average 10 mg/m³ Form of exposure: Total dust.

(TWA)

OSHA TRANS **PEL** 15 mg/m³ Form of exposure: Total dust.

Time Weighted Average 10 mg/m³ Form of exposure: Total dust. Z₁A

(TWA)

Diiron trioxide 1309-37-1

NIOSH/GUIDE

ACGIH Time Weighted Average 5 mg/m³ Form of exposure: Respirable

5 mg/m³

fraction.

(TWA) Recommended exposure limit

(REL)

OSHA TRANS Permissible exposure limit 10 mg/m³

(PEL)

Time Weighted Average 10 mg/m³ Form of exposure: fume. Z1A

(TWA)

crystalline silica 1317-95-9

Product Kama Pigments PM-000045, Natural Mica Perlescent Pigment -Flash

ACGIH Time Weighted Average 0.025 mg/m³ Form of exposure: Respirable

fraction.

(TWA)

Z1A Time Weighted Average 0.1 mg/m³ Form of exposure: Respirable dust.

(TWA) Expressed as: as quartz

Engineering measures Technical measures and appropriate working operations should be given priority over the

use of personal protective equipment.

Individual protection measures Protective clothing should be selected specifically for the workplace, depending on

concentration and quantity of the hazardous substances handled. The chemical resistance

of the protective equipment should be inquired at the respective supplier.

Change contaminated clothing. Wash hands after working with substance.

Safety glasses not required

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert

substances

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These

measures have to be properly documented.

Section: 9 Physical and Chemical Properties

Physical state powder
Color silver

Odor Odorless
Odor Threshold Not applicable

pH at 100 g/l (20 °C) 8-11

Hygiene measures Eye/face protection

Hand protection Respiratory protection

Melting point No information available.

Boiling point/boiling range

Not applicable

Flash point

Not applicable

Evaporation rate No information available. Flammability (solid, gas) The product is not flammable.

Relative density

Water solubility at 20 °C

Partition coefficient: n-octanol/water

Autoignition temperature

Not applicable

Not applicable

Not applicable

Not applicable

Decomposition temperature Not applicable Viscosity, dynamic Not applicable

Explosive properties Not classified as explosive.

Oxidizing properties none

Bulk density $170 - 210 \text{ kg/m}^3$ Particle size $10.0 - 60.0 \text{ } \mu\text{m}$

Section: 10 Stability And Reactivity

Chemical stability The product is chemically stable under standard ambient conditions (room

temperature).

Possibility of hazardous reactions no information available
Conditions to avoid no information available
Incompatible materials no information available
Hazardous decomposition products no information available

Section: 11 Toxicological Information

Likely route of exposure Inhalation, Eye contact, Skin contact, Ingestion

Target Organs Eyes Skin

Respiratory system

Specific target organ systemic toxicity

single exposure The substance or mixture is not classified as specific target organ toxicant, single

exposure.

repeated exposure The substance or mixture is not classified as specific target organ toxicant, repeated

exposure.

Aspiration hazard Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC Group 2B: Possibly carcinogenic to humans

titanium(IV) oxide 13463-67-7

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as

a carcinogen or potential carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as

a known or anticipated carcinogen by NTP.

ACGIH No ingredient of this product present at levels greater than or equal to 0.1% is identified as

a carcinogen or potential carcinogen by ACGIH.

Further informations: The results of animal experiments using pigments of this type indicate no toxicologically

relevant properties. Since the substance is poorly absorbed, no hazardous properties are to be anticipated. Inhalation of the dusts should be avoided as even inert dusts may impair respiratory organ functions. The individual test results were as follows: skin tolerance (rabbit): no irritant effect; eye irritation test (rabbit): no irritant effect; sensitization test (guinea pig): no sensitizing potential; subchronic toxicity (rat): no findings up to 20,000 ppm. LD50 (oral, rat): not determinable; all animals still alive after 15,000 mg/kg.

Chronic toxicity (rat): 5 % of the product added to the feed for a period of 2.5 years did not

show any toxicological changes or carcinogenic effects in animals.

LC50 (inhalational, rat): male animals: between 4.6 and 14.9 mg/l air; female animals: >

14.9 mg/l air.

The product did not show any genotoxic effects in the micronucleus test carried out in rats

in concentrations of up to 2000 mg/kg (limit test).

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

mica (muscovite)

No information available.

titanium(IV) oxide

Acute oral toxicity LD50 Rat: > 10,000 mg/kg (External MSDS)

Skin irritation Rabbit Result:

No skin irritation (IUCLID)
Eye irritation Rabbit Result:

No eye irritation (IUCLID)

Section: 12 Ecological Information

Ecotoxicity No information available.

Persistence and degradability No information available.

Bioaccumulative potential

Partition coefficient: n-octanol/water Not applicable

Mobility in soil No information available.

Ingredients

Diiron trioxide No information available. mica (muscovite) No information available.

Ingredients

mica (muscovite)

No information available.

titanium(IV) oxide

Toxicity to fish LC0 Leuciscus idus (Golden orfe): > 1,000 mg/l(External MSDS)

Toxicity to bacteria LC0 Leuciscus idus (Golden orfe): > 1,000 mg/l(External MSDS)

Section: 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section: 14 Transport Information

Land transport (DOT) Air transport (IATA) Sea transport (IMDG) Not classified as dangerous in the meaning of transport regulations. Not classified as dangerous in the meaning of transport regulations. Not classified as dangerous in the meaning of transport regulations.

Section: 15 Regulatory Information

SARA 313 This material does not contain any chemical components with known CAS numbers that

exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section

313.

SARA 302 No chemicals in this material are subject to the reporting requirements of SARA Title III,

Section 302.

Clean Water Act This product does not contain any Hazardous Substances listed under the U.S. CleanWater

Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater

Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Ingredients titanium(IV) oxide

mica (muscovite)

Pennsylvania Right To Know

Ingredients titanium(IV) oxide

mica (muscovite)

New Jersey Right To Know

Ingredients titanium(IV) oxide

mica (muscovite)

California Prop 65 Components WARNING: this product contains a chemical known in the State of California to cause

cancer.

Product Kama Pigments PM-000045, Natural Mica Perlescent Pigment -Flash

Ingredients titanium(IV) oxide

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

All components of this product are on the Canadian DSL

Section: 16 Other Information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

Precautionary Statements P260 Do not breathe dust.

Reference Manufacturer's material safety data sheet.

Prepared by Kama pigments

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