作成日 2024/06/21

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:
- Product name: ラメの素/DROP OF SHIMMER
- Product number: ECF060-XXX, ECF160-XXX, ECF163-XXX, ECF063-XXX
- SDS No. :G_SC046_1-3

Relevant identified uses of the substance or mixture and uses advised against
- Relevant identified uses of the product: Drawing

Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Kuretake Co.,Ltd.
- Address: 576, Minamikyobate-cho, 7-chome, Nara-shi, 630-8670 Japan
- Division: Technical Department
- Telephone number: +81-742-50-2053
- FAX: +81-742-50-2073

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS
- Skin sensitization: Category 1
- Carcinogenicity: Category 1A
- Specific target organ toxicity - single exposure: Category 2
- Specific target organ toxicity - repeated exposure: Category 2

Label elements

Signal word: Danger

HAZARD STATEMENT
- H317 May cause an allergic skin reaction
- H350 May cause cancer
- H371 May cause damage to organs
- H373 May cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash contaminated parts thoroughly after handling.
- P280 Wear protective gloves.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Use personal protective equipment as required.
- P270 Do not eat, drink or smoke when using this product.

Response
- P321 Specific treatment is required.
- P314 Get medical advice/attention if you feel unwell.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name	CAS No.	Content (%)	Chemicals No, Japan
Titanium dioxide	13463-67-7	1 - 10	1-558
Ferric oxide	1309-37-1	1 - 10	1-357; 5-5188
Silica (containing crystalline and amorphous SiO2)	7631-86-9	1 - 10	1-548
Mica	12001-26-2	1 - 10	-
Water	7732-18-5	60 - 70	-
Benzotriazole	95-14-7	< 1	5-537
Silver	7440-22-4	1 - 10	-

Components contributing to the hazard

Component(s) come under Labeling, etc. article of Industrial Safety and Health Act, Japan
Titanium dioxide , Ferric oxide , Silica (containing crystalline and amorphous SiO2) , Titanium dioxide (rutile) , Silver

Component(s) come under Deliver of Documents, etc. article of Industrial Safety and Health Act, Japan
Titanium dioxide , Ferric oxide , Silica (containing crystalline and amorphous SiO2) , Titanium dioxide (rutile) , Silver

Component(s) listed in chemicals Gr.1 in Japan PRTR Law (valid until 31 March, 2023).
Silver , Glass, oxide

Component(s) listed in chemicals Gr.1 in Japan PRTR Law (effective from 1 April, 2023).
Silver , Glass, oxide

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
IF exposed or concerned: Call a POISON CENTER/doctor/physician.

IF INHALED

Remove the victim to the fresh air area. If feel bad, see a doctor.

IF ON SKIN (or hair)

Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Put off the all polluted clothes immediately. Clean with the proper temp. and slow flowing water
for over 15 minutes. If have irritate the skin, see a doctor. Call a doctor if feel bad.
Before re-use
the put off clothes, clean it up and remove the pollution.

IF IN EYES

Put off the contacts if possible, and continue to clean. Clean the eyes carefully for a few minutes.
If the eyes get this product, clean the eye immediately and wash away completely. If the cleaning
eyes not enough, it may cause irreversible eye damage.
If irritate to the eyes continue, see a doctor.

IF SWALLOWED

Call a doctor, if feel bad. Rinse the mouth out. Do not have the victim vomit.

Protective measures for first aid

Rescuer must wear proper protective equipment according to the situation.

Indication of any immediate medical attention and special treatment needed

(Affected/injured region(s)/organ(s))

Sialorrhea, face flash, cough, dizzy, lethargy, headache, sore throat, deliquim animi barf, vomition
Specific treatment is required.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.
Small fire / Carbon dioxide, dry chemical extinguishing media, water spray, alcoholic resistance foam.

Unsuitable extinguishing media

Cylindrical pouring water.

Specific hazards arising from the substance or mixture

The irritative, toxicity and corrosive gas is generated by fire. The container will be burst by heating. If it is not dangerous, move the container from the fire area.

If it is impossible to move, cool the container and around by spraying water. After extinguishing a fire, cool the container completely by large quantity of water.

Advice for firefighters

Specific fire-fighting measures

If it is not dangerous, move the container from the fire area.
If it is impossible to move, cool the container and around by spraying water. After extinguishing a fire,

Special protective equipment and precautions for fire-fighters

For fighting fire, wear compressed air open-circuit SBCA and protect equipment for chemical. Fight a fire from up wind.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

The worker must wear proper protector (refer to section 8) not to get the paint on the skin or into eyes. Do not touch the leakage material or walk into it. Keep the proper distance in all direction as the leakage area immediately. No unauthorized entry. If leakage but not occur a fire, wear the occlusive and impervious protect wear. Stay in the wind. Move away from the low ground.

Ventilate before enter the sealed area.

Environmental precautions

Prevent from influx into the drain ditch, sewer, basement and closed area.
Take notice not to affect the environment by discharge the paint into the river.

Methods and materials for containment and cleaning up

Collect Neutralization: In small quantity case, absorb the leakage material by dry sand and non flammable material or collect it in the sealed type container then dispose it. In small quantity case, collect the absorbed material by clean antistatic tools. In large quantity case, yard the leakage material by mound to prevent flow out and lead it into safety area then collect it. In large quantity case, water spray lower the steam temperature but it may not inhibit combustion at the sealed area. Containment or Depurant and Equipment: If it is not danger, stop the leakage. Ground all equipment which need for handle the leakage material. Use steam retard foam for lower the steam concentration. Precaution of Second Disaster: Clear away all ignition source immediately (Do not smoking near around, forbid firework and flame). In case large steam generating, retard it by mist spray. Call related agency and ask the help.
If it is not danger, stop the leakage. Ground all equipment which need for handle the leakage material.
Use steam retard foam for lower the steam concentration.
The worker must wear proper protector (refer to section 8) not to get the paint on the skin or into eyes.
Do not touch the leakage material or walk into it. Keep the proper distance in all direction as the leakage area immediately.
No unauthorized entry. If leakage but not occur a fire, wear the occlusive and impervious protect wear.
Stay in the wind. Move away from the low ground.
Ventilate before enter the sealed area.

Preventive measures for secondary accident

Clear away all ignition source immediately (Do not smoking near around, forbid firework and flame)
In case large steam generating, retard it by mist spray. Call related agency and ask the help.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.
Avoid breathing dust/fume/gas/mist/vapors/spray.

(Exhaust/ventilator)

Use this product outside or well ventilated area only. Avoid touching, refer to the section 10.
Do the local exhaust ventilation and whole ventilation described on section 8.

Safety Measures

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves.
Use personal protective equipment as required.
Take the equipment measures described in ″8. Exposure Prevention and Protective Measures″ and wear protective equipment.
Obtain the instruction manual before use.
Do not handle until you have read and understood all safety precautions.

Be careful of fire.
Do not touch, inhale or swallow.
Ventilate for exhaust to keep the concentration in the air below the exposure limit.
Wash your hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Do the equipment measure described on the section 8 and wear protector.
Prevent leakage the liquid and steam as possible.
This product irritate the eyes so that care not to get it into the eyes. This product may cause sleep or vertigo, irritate the apparatus respiratorius and damage organ parts so that do not touch, inhale and swallow it. Do not fall, drop, shock or drag the container. Clean hands well after use this product.
Keep away from high temperature materials spark and fire, and avoid touching oxidizer peroxide.
Container material: Use the container regulated by fire law and UN transportation law.

Any incompatibilities

Refer to the section 10.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Take off contaminated clothing and wash it before reuse.

Storage

Conditions for safe storage

Store locked up.
The storage location should be made of non-combustible material, covered with metal plate or other lightweight non-combustible material, and no ceiling should be provided.
The floor of the storage location shall have a structure that does not allow water to penetrate or penetrate the floor.
The floor of the storage place should be structured so that dangerous substances do not penetrate, and it should be sloped appropriately and stored appropriately.
To provide.
The storage area will be provided with daylighting, lighting and ventilation equipment necessary to store or handle dangerous goods.
Store away from oxidants.
Lock and store.
Keep the container airtight and stock it in well ventilated place. Stock in the fulfilled and ventilated and cool place. Keep away from oxidant. Keep away from direct sunlight and fire. The inventory location must be fire-proof construction and the floor must be impermeable to prevent permeate the basement and spill to outside. Lock up the container.

(Incompatibilities)

Refer to the section 10.

8. Exposure controls/personal protection

Control parameters

Control value in MHLW is not available.

Adopted value

(Titanium dioxide)
JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3
(Ferric oxide)
JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3
(Silver)
JSOH(1991) 0.01mg-Ag/m3
(Titanium dioxide)

ACGIH(1996) TWA: (10mg/m3) (LRT irr)
(Ferric oxide)
ACGIH(2006) TWA: 5mg/m3(R) (Pneumoconiosis)
(Mica)
ACGIH(2020) TWA: 0.1mg/m3(R) (Pneumoconiosis)
(Silver)
ACGIH(1992) TWA: 0.1mg-Ag/m3 (Argyria)

OSHA-PEL
(Silver)
TWA: 0.01mg-Ag/m3
(Titanium dioxide)
TWA: 15mg/m3
(Ferric oxide)
TWA: 10mg/m3(fume)
(Mica)
TWA: 20mppcf

NIOSH-REL
(Titanium dioxide)
Ca(ultrafine particles); TWA: 2.4 mg/m3 (fine);
TWA: 0.3 mg/m3 (ultrafine);
See Appendix A; See NIOSH Intelligence Bulletin 63
(Silver)
TWA: 0.01mg-Ag/m3
(Ferric oxide)
TWA: 5mg/m3(dust & fume)
(Mica)
TWA: 3mg/m3 (Respirable dust)

Exposure controls

Appropriate engineering controls
Install the eyewashing devices and safety shower where handle or stock this product.

Individual protection measures

Respiratory protection
Wear proper respiratory protect equipment such as gas mask for organic gas (if high concentration, wear air-supplied respirator).

Hand protection
Wear the gloves designated by manufacturer.

Eye protection
Wear the eye protector designated by manufacturer.

Skin and body protection
Wear protect boots, oil resistant apron (impermeable and antistatic) and protect clothes (antistatic) designated by manufacturer.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Liquid
Odor data is not available.
Melting point/Freezing point data is not available.
Boiling point or initial boiling point data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point data is not available.
Auto-ignition temperature data is not available.
Decomposition temperature data is not available.

pH data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water data is not available.
Solubility in solvent data is not available.
n-Octanol/water partition coefficient data is not available.
Vapor pressure data is not available.
Vapor density data is not available.
Density and/or relative density data is not available.
Relative vapor density (Air=1) data is not available.
Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity
Reactivity data is not available.
Chemical stability
Under usually storage condition, it is stable.
Possibility of hazardous reactions

Conditions to avoid
Avoid heat and source of ignition.
Incompatible materials

Hazardous decomposition products
Generates harmful gas such as carbon monoxide and carbon dioxide.

11. Toxicological Information

Information on toxicological effects
Acute toxicity
Acute toxicity (Oral)
[GHS Cat. Japan, base data]
(Titanium dioxide)
rat LD50 >5000mg/kg (SIDS, 2015)
(Ferric oxide)
rat LD50 >10000mg/kg (HSDB, Access on July 2019)
(Silica (containing crystalline and amorphous SiO2))
rat LD50 >3300mg/kg, >2000mg/kg and so on (ECETOC JACC, 2006; SIDS, 2006)
(Benzotriazole)
rat LD50=560mg/kg (DFGMAK-Doc. Vol.2, 1991)
Acute toxicity (Dermal)
[GHS Cat. Japan, base data]
(Titanium dioxide)
hamster LD50>10000mg/kg (HSDB, Access on May 2016)
(Silica (containing crystalline and amorphous SiO2))
rabbit LD50 >2000mg/kg, >5000mg/kg (ECETOC JACC, 2006; SIDS, 2006)
Acute toxicity (Inhalation)
[GHS Cat. Japan, base data]
(Titanium dioxide)
dust: rat LC50 >5.09mg/L (SIDS, 2015)
(Ferric oxide)
dust: rat no death at 5.05mg/L (REACH Registration dossier, Access on Aug. 2019)
(Benzotriazole)

mist: rat LC50=1.43mg/L/4hr (PATTY 5th, 2001)
Labor standard law, Japan; Toxic
Silver
Irritant properties
Skin corrosion/irritation data is not available.
Serious eye damage/irritation
[GHS Cat. Japan, base data]
(Silica (containing crystalline and amorphous SiO2))
rabbit recoverable eyes irrtation (SIDS, 2006; ECETOC JACC, 2006)
(Benzotriazole)
rabbit corneal opacity et al (DFGMAK-Doc. Vol.2, 1991)
(Silver)
rabbit recover in 48hours (IUCLID, 2000)
Sensitization
Skin sensitization
[GHS Cat. Japan, base data]
(Silver)
cat. 1; ACGIH, 2001
Mutagenic effects data is not available.
Carcinogenicity
[GHS Cat. Japan, base data]
(Titanium dioxide)
cat.2; IARC Gr. 2B (IARC 93, 2010 et al.)
(Silica (containing crystalline and amorphous SiO2))
cat.1A; (ECETOC JACC No. 51, 2006)
[IARC]
(Titanium dioxide)
Group 2B : Possibly carcinogenic to humans
(Ferric oxide)
Group 3 : Not classifiable as to its carcinogenicity to humans
(Silica (containing crystalline and amorphous SiO2))
Group 3 : Not classifiable as to its carcinogenicity to humans
[ACGIH]
(Titanium dioxide)
A4(1996) : Not Classifiable as a Human Carcinogen
(Ferric oxide)
A4(2006) : Not Classifiable as a Human Carcinogen
[JSOH]
(Titanium dioxide)
Group 2B: The agents which are probably or possibly carcinogenic to humans
Teratogenic effects data is not available.
Reproductive toxicity data is not available.
STOT
STOT-single exposure
[cat.1]
[GHS Cat. Japan, base data]
(Ferric oxide)
respiratory system (ACGIH 7th, 2006; HSDB, Access on July 2019)
(Silver)
respiratory system (ACGIH, 2001)
[cat.3 (resp. irrit.)]
[GHS Cat. Japan, base data]
(Silica (containing crystalline and amorphous SiO2))
respiratory tract irritation (SIDS, 2006; ECETOC JACC, 2006)

[cat.3 (drow./dizz.)]
[GHS Cat. Japan, base data]
(Benzotriazole)
narcotic effect (HSDB, 2003)
STOT-repeated exposure
[cat.1]
[GHS Cat. Japan, base data]
(Titanium dioxide)
respiratory system (SIDS, 2015)
(Ferric oxide)
respiratory system (ACGIH 7th, 2006; DFGOT vol.2, 1991)
(Silica (containing crystalline and amorphous SiO2))
respiratory system; immune system; kidney (ACGIH 7th, 2006)
(Mica)
respiratory system (ACGIH 7th, 2001)
(Silver)
Inhalation: respiratory system (HSDB, 2003)
(Silver)
eye (ACGIH, 2001)
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Hazardous to the aquatic environment (Acute)
[GHS Cat. Japan, base data]
(Titanium dioxide)
Crustacea (Daphnia magna) EL50 > 100mg/L/48hr (SIDS, 2015)
Water solubility
(Triethylene glycol)
very good (ICSC, 1996)
(Ferric oxide)
none (ICSC, 2004)
(Titanium dioxide)
none (ICSC, 2002)
(Silver)
none (ICSC, 1997)
(Benzotriazole)
2 g/100 ml (ICSC, 1998)
Persistence and degradability
Persistence and degradability data is not available.
Bioaccumulative potential
(Triethylene glycol)
log Pow=-1.24 through -1.9 (calc.) (ICSC, 1996)
Mobility in soil
Mobility in soil data is not available.
Other adverse effects
Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.
For dispose, follow the related regulation and standard of local governments. Ask the licensed industrial waste disposal company or local governments.

Residue Waste: For dispose, follow the related regulation and standard of local governments. Ask the licensed industrial waste disposal company or local governments.
For Burning: Spray the incinerator with waste liquid directly or mix with flammable solvent in small quantity to burn. Activated sludge process.

Contaminated packing

Clean the container and recycle or treat it in accordance with the related regulation or local governments. If dispose the container, remove the content completely.

14. Transport Information

UN No., UN CLASS

UN No. or ID No.: Not applicable
UN Proper Shipping Name : Not applicable
Class or division (Transport hazard class) : Not applicable
Packing group : Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

MARPOL Annex V - Prevention of pollution by garbage discharge

Carcinogenicity: cat.1, 1A, 1B
Silica (containing crystalline and amorphous SiO2)

Special precautions for user

Make sure the container is free of damage, corrosion, leaks, etc. before shipping.
Dangerous goods should not fall or the transport container containing the dangerous goods should fall, fall or be damaged.
To load.
Avoid tipping, impact, friction, crushing, leakage, etc. when moving.
If a disaster occurs due to an accident during transportation, etc., notify the fire department or other related organizations.
Carry a yellow card during transportation.
Common: Please follow the section7. Check if there are no leakage from container and take cargo without falling, dropping and damage.
Land Transportation: In case of fall under the Fire Law, Industrial Safety and Health Law, Poisonous Material Control Law follow each relevant mode of transportation.
Marine Transportation: Please follow the Law for Safety of Vessel.
Air Transportation: Please follow the Aviation Law and regulation of ICAO.

Maritime transport in bulk according to IMO instruments

Noxious Liquid ; Cat. Z
Titanium dioxide (rutile); Titanium dioxide
Non Noxious Liquid ; Cat. OS
Triethylene glycol; Silica (containing crystalline and amorphous SiO2); Water

Rules and regulations on domestic transport

Not applicable to Ship Safety Act
Not applicable to Civil Aeronautics Act

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Industrial Safety and Health Act, Japan

Ordinance on Prevention of Hazards Due to Dust

Silica (containing crystalline and amorphous SiO2); Silver; Titanium dioxide (rutile); Titanium dioxide

Chemical Substances requiring Labeling and Deliver of Documents, etc.

Labeling, etc.

Silver; Silica (containing crystalline and amorphous SiO2); Titanium dioxide (rutile); Titanium dioxide; Ferric oxide

Report required substances

Silver; Silica (containing crystalline and amorphous SiO2); Titanium dioxide (rutile); Titanium dioxide; Ferric oxide

PRTR law, Japan (valid until 31 March, 2023)

Listed chemicals Gr.1

Silver and its water-soluble compounds (as Ag)(3.0%);
Boron compounds (as B)(8.0%)

PRTR law, Japan (effective from 1 April, 2023)

Listed chemicals Gr.1

Boron compounds (as B)(8.0%);
Silver and its water-soluble compounds (as Ag)(3.0%)

Pneumoconiosis Law, Japan

Silica (containing crystalline and amorphous SiO2); Silver; Titanium dioxide (rutile); Titanium dioxide

Air Pollution Control Law, Japan

Hazardous air pollutants

Silver

Water Pollution Control Law, Japan

Listed substance(s)

Ferric oxide

Chemicals listed in TSCA Inventory

Benzotriazole; Triethylene glycol; Ferric oxide; Titanium dioxide (rutile); Silver; Silica (containing crystalline and amorphous SiO2); Water; Titanium dioxide; Glass, oxide

Superfund Amendments and Reauthorizations Act (SARA), Title III

SARA 313 (TRI)

Silver

California proposition 65

Cancer

Silica (containing crystalline and amorphous SiO2)
Titanium dioxide (rutile)
Titanium dioxide

Chemical safety assessment

No chemical safety assessment has been carried out for this product.

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (62nd Edition) 2021
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2021 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer