

作成日 2024/03/04

Safety Data Sheet

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

Product identifier:

Product name: KURETAKE GANSAI TAMBI 12 COLOURS SET,
KURETAKE GANSAI TAMBI 18 COLOURS SET
KURETAKE GANSAI TAMBI 24 COLOURS SET
KURETAKE GANSAI TAMBI 36 COLOURS SET
KURETAKE GANSAI TAMBI 48 COLOURS SET
KURETAKE GANSAI TAMBI SUMI COLORS 6 COLOURS SET
GANSAI TAMBI GRANULATING COLORS 5 COLOURS
IRODORI KOBAKO “彩り小箱”
IRODORI KOBAKO “彩り小箱”RED
IRODORI KOBAKO “彩り小箱”GREEN
KURETAKE GANSAI TAMBI 12 COLOR SET II
KURETAKE GANSAI TAMBI PORTABLE 14 SET
彩り小箱 若葉

SDS No. :G_SE001_1-3

Product Number: MC20/12V,18V,24V,36V,48V

MC23-1,11,12

MC20/12VNW

MC20SU/6V

MC20GN/5V

MC30-1

MC23-2S

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

Details of Distributor: Company name: Rossdale Pty Ltd
Company Address: 351 - 353 Warrigal Road Cheltenham 3192 Victoria Australia
Company Phone: (03) 9583 4411 Fax: (03) 95834399

EMERGENCY TELEPHONE NUMBERS: POISONS INFORMATION 13 11 26

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Skin sensitization: Category 1A

Carcinogenicity: Category 1A

Reproductive toxicity: Category 1B

Specific target organ toxicity – single exposure: Category 1

Specific target organ toxicity – single exposure: Category 2

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

Specific target organ toxicity – repeated exposure: Category 1

Specific target organ toxicity – repeated exposure: Category 2

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 2

Hazardous to the aquatic environment (Long-term): Category 2

Label elements



Signal word: Danger

HAZARD STATEMENT

H317 May cause an allergic skin reaction

H350 May cause cancer

H360 May damage fertility or the unborn child

H370 Causes damage to organs

H371 May cause damage to organs

H335 May cause respiratory irritation

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

H401 Toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P271 Use only outdoors or in a well-ventilated area.

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

P391 Collect spillage.

P321 Specific treatment is required.

P314 Get medical advice/attention if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P312 Call a POISON CENTER/doctor/physician if you feel unwell.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P403 Store in a well-ventilated place. P233 Keep container tightly closed.

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	20 - 30	1-558
Barium sulfate; C.I. Pigment white 21	7727-43-7	20 - 30	1-89
Carbon black	1333-86-4	1 - 10	-
Methanol	67-56-1	< 1	2-201
Aluminum oxide	1344-28-1	1 - 10	1-23
Ferric oxide	1309-37-1	1 - 10	1-357; 5-5188
Silica (containing crystalline and amorphous SiO ₂)	7631-86-9	1 - 10	1-548
Copper	7440-50-8	20 - 30	-
Zinc	7440-66-6	1 - 10	-
Ethylene glycol	107-21-1	< 1	2-230
Triethanolamine	102-71-6	< 1	2-308; 2-353

Components contributing to the hazard

Component(s) come under Labeling, etc. article of Industrial Safety and Health Act, Japan

Titanium dioxide , Carbon black , Methanol , Aluminum oxide ,

Ferric oxide , Silica (containing crystalline and amorphous SiO₂) , Copper

Component(s) come under Deliver of Documents, etc. article of Industrial Safety and Health Act, Japan

Titanium dioxide , Carbon black , Methanol , Aluminum oxide ,

Ferric oxide , Silica (containing crystalline and amorphous SiO₂) , Copper , Triethanolamine

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.

Call a POISON CENTER/doctor/physician if you feel unwell.

IF exposed or concerned: Call a POISON CENTER/doctor/physician.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

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

Collect spillage.

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.

Use only outdoors or in a well-ventilated area.

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 in a well-ventilated place. Keep container tightly closed.

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

Standard Name	Cas No	TWA ppm	TWA mgm3	STEL ppm	STEL mgm3	Notes	
Methyl alcohol ;Methanol;	67-56-1	200	262	250	328	Sk.	Referenced Safe Work Australia Exposure Standards
Carbon black	1333-86-4	-	3	-	-		Referenced Safe Work Australia Exposure Standards
Titanium dioxide (a)	13463-67-7	-	10	-	-	-- H (see Chapter 14)	Referenced Safe Work Australia Exposure Standards
Aluminium oxide (a)	1344-28-1	-	10	-	-	-- H (see Chapter 14)	Referenced Safe Work Australia Exposure Standards
Ferric Oxide	-	-	-	-	-		Referenced Safe Work Australia Exposure Standards-the search criteria entered no results
Barium Sulfate	-	-	-	-	-		Referenced Safe Work Australia Exposure Standards-the search criteria entered no results
Copper (fume)	7440-50-8	-	0.2	-	-		Referenced Safe Work Australia Exposure Standards
Copper, dusts & mists (as Cu)	7440-50-8	-	1	-	-		Referenced Safe Work Australia Exposure Standards
Ethylene glycol (vapour) ;Ethane-1,2-diol;	107-21-1	20	52	40	104	Sk.	Referenced Safe Work Australia Exposure Standards
Triethanolamine	102-71-6	-	5	-	-	Sen.	Referenced Safe Work Australia Exposure Standards

Control parameters

Control value

(Methanol)

Japan control value (1995) <= 200ppm

Adopted value

(Titanium dioxide)

JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3

(Carbon black)

JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3

(Methanol)

JSOH(1963) 200ppm; 260mg/m3

(Ferric oxide)

JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3

(Titanium dioxide)

ACGIH(1996) TWA: (10mg/m3) (LRT irr)

(Barium sulfate; C.I. Pigment white 21)

ACGIH(2014) TWA: 5mg/m3(I, E) (Pneumoconiosis)

(Carbon black)

ACGIH(2011) TWA: 3mg/m3(I) (Bronchitis)

(Methanol)

ACGIH(2009) TWA: 200ppm;

STEL: 250ppm (Headache; eye dam; dizziness; nausea)

(Aluminum oxide)

ACGIH(2008) TWA: (Insoluble)1mg/m3(R) (Pneumoconiosis; LRT irr; neurotoxicity)

(Ferric oxide)

ACGIH(2006) TWA: 5mg/m3(R) (Pneumoconiosis)

(Copper)

ACGIH(1990) TWA: 0.2mg-Fume/m3,

TWA: 1mg-Dust and mist/m3 (Irr; GI; metal fume fever)

(Ethylene glycol)

ACGIH(2017) TWA: 25ppm(V);

STEL: 50ppm (V), 10mg/m3(I,H) (URT irr)

(Triethanolamine)

ACGIH(1993) TWA: 5mg/m3 (Eye & skin irr)

Notation

(Methanol)

Skin

OSHA-PEL

(Titanium dioxide)

TWA: 15mg/m3

(Aluminum oxide)

TWA: 15mg/m³ (Total dust)

TWA: 5mg/m³ (Respirable fraction)

(Barium sulfate; C.I. Pigment white 21)

TWA: 15mg/m³ (Total dust)

TWA: 5mg/m³ (Respirable fraction)

(Carbon black)

TWA: 3.5mg/m³

(Copper)

TWA: 0.1mg-Cu/m³ (Fume)

TWA: 1mg-Cu/m³ (Dusts and mists)

(Ferric oxide)

TWA: 10mg/m³(fume)

(Methanol)

TWA: 200ppm, 260mg/m³

NIOSH-REL

(Aluminum oxide)

See Appendix D

(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

(Barium sulfate; C.I. Pigment white 21)

TWA: 10mg/m³ (Total dust)

TWA: 5mg/m³ (Respirable fraction)

(Carbon black)

TWA: 3.5mg/m³ (without PAHs); when PAHs are present, NIOSH considers carbon black to be a potential carcinogen.

See Appendix A, See Appendix C.

(Copper)

TWA: 0.1mg-Cu/m³ (Fume)

TWA: 1mg-Cu/m³ (Dusts and mists)

(Ferric oxide)

TWA: 5mg/m³(dust & fume)

(Methanol)

TWA: 200ppm; STEL: 250ppm

California proposition 65

Reproductive Toxicity MADL

(Ethylene glycol)

MADL=8700 μg/day (oral)

(Methanol)

MADL=47000 μg/day (inhalation); 23000 μg/day (oral)

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: Solid

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: No information

Kinematic viscosity: No information

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)

(Methanol)

human LD50=ca. 1400mg/kg (DFGOT vol.16, 2001)

(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)
(Ethylene glycol)

rat LD50=6140mg/kg (PATTY 6th, 2012)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Titanium dioxide)

hamster LD50>10000mg/kg (HSDB, Access on May 2016)

(Methanol)

rabbit LD50=15800mg/kg (DFGOT vol.16, 2001)

(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)

(Methanol)

vapor: rat LC50>31500ppm/4hr (DFGOT vol.16, 2001)

(Ferric oxide)

dust: rat no death at 5.05mg/L (REACH Registration dossier, Access on Aug. 2019)

(Ethylene glycol)

mist: rat LC50=2.7mg/L/4hr (PATTY 6th, 2012)

Labor standard law, Japan; Toxic

Copper; Zinc; Methanol

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

(Ethylene glycol)

human irritation (SIDS, 2009)

(Triethanolamine)

human irritation (NTP TR 518, 2004 et al)

Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Methanol)

rabbit category 2 : Draize test (EHC 196, 1997)

(Silica (containing crystalline and amorphous SiO₂))

rabbit recoverable eyes irritation (SIDS, 2006; ECETOC JACC, 2006)

(Zinc)

rabbit mild irritation (NITE Initial Risk Assessment Report, 2007)

(Ethylene glycol)

rabbit mild conjunctiva irritation (CICAD 45, 2002)

(Triethanolamine)

rabbit recover within 14 days (PATTY 6th, 2012 et al)

Sensitization

Skin sensitization

[GHS Cat. Japan, base data]

(Copper)

cat. 1A; JSOH recommendation, 2012

(Triethanolamine)

cat. 1; ACGIH 7th, 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.)

(Carbon black)

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

(Carbon black)

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

(Triethanolamine)

Group 3 : Not classifiable as to its carcinogenicity to humans

[ACGIH]

(Titanium dioxide)

A4(1996) : Not Classifiable as a Human Carcinogen

(Carbon black)

A3(2011) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

(Aluminum oxide)

A4(2008) : Not Classifiable as a Human Carcinogen

(Ferric oxide)

A4(2006) : Not Classifiable as a Human Carcinogen

(Ethylene glycol)

A4(2017) : Not Classifiable as a Human Carcinogen

[JSOH]

(Titanium dioxide)

Group 2B: The agents which are probably or possibly carcinogenic to humans

(Carbon black)

Group 2B: The agents which are probably or possibly carcinogenic to humans

Reproductive toxicity

[GHS Cat. Japan, base data]

(Methanol)

cat. 1B; mouse : PATTY 5th, 2001

Teratogenic effects 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)

(Copper)

gastrointestinal tract (ATSDR, 2004)

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

(Aluminum oxide)

respiratory tract irritation (ICSC, 2000)

(Silica (containing crystalline and amorphous SiO₂))

respiratory tract irritation (SIDS, 2006; ECETOC JACC, 2006)

(Copper)

respiratory tract irritation (ATSDR, 2004)

(Ethylene glycol)

respiratory tract irritation (NITE Initial Risk Assessment Report, 2007; ACGIH 7th, 2001)

(Triethanolamine)
respiratory tract irritation (NTP TR 518, 2004)

[cat.3 (drow./dizz.)]

[GHS Cat. Japan, base data]

(Methanol)

narcotic effect (PATTY 5th, 2001)

(Ethylene glycol)

narcotic effect (NITE Initial Risk Assessment Report, 2007; ACGIH 7th, 2001)

STOT-repeated exposure

[cat.1]

[GHS Cat. Japan, base data]

(Titanium dioxide)

respiratory system (SIDS, 2015)

(Barium sulfate; C.I. Pigment white 21)

respiratory system (CICAD 33, 2001)

(Carbon black)

respiratory system (SIDS, 2007)

(Aluminum oxide)

lung; Inhalation (EHC, 1997)

(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)

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Triethanolamine)

Algae (*Scenedesmus subspicatus*) EC50=169mg/L/96hr (SIDS, 2001)

(Ethylene glycol)

Fish (*Oryzias latipes*) LC50 > 100mg/L/96hr (MOE Japan, 2001)

(Carbon black)

Crustacea (*Daphnia magna*) EC50 >5600mg/L/24hr (SIDS, 2007)

(Titanium dioxide)

Crustacea (*Daphnia magna*) EL50 > 100mg/L/48hr (SIDS, 2015)

(Methanol)

Crustacea (Brine shrimp) LC50=900.73mg/L/24hr (EHC196, 1998)

(Zinc)

Algae (*Pseudokirchneriella subcapitata*) ErC50=0.15mg/L/72hr (EHC 221, 2001)

(Barium sulfate; C.I. Pigment white 21)

Crustacea (*Daphnia magna*) EC50=32mg/L/48hr (CICADs , 2001)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

(Triethanolamine)

Crustacea (*Daphnia magna*) NOEC=16mg/L/21days (SIDS, 2001)

(Ethylene glycol)

Crustacea (*Ceriodaphnia reticulata*) MATC=4.2mg/L/7days (MOE Japan, 2004)

Water solubility

(Triethanolamine)

miscible in water (HSDB, 2013)

(Ethylene glycol)

100 g/100 ml (PHYSROP_DB, 2005)

(Ferric oxide)

none (ICSC, 2004)

(Carbon black)

none (ICSC, 2010)

(Aluminum oxide)

none (ICSC, 2000)

(Titanium dioxide)

none (ICSC, 2002)

(Methanol)

100 g/100 ml (PHYSROP_DB, 2009)

(Zinc)

reaction (ICSC, 1994)

(Copper)

none (ICSC, 1993)

(Barium sulfate; C.I. Pigment white 21)

none (ICSC, 1999)

Persistence and degradability

(Triethanolamine)

Not degrade rapidly (BOD_Degradation : 0% (METI existing chemical safety inspections 1978))

(Ethylene glycol)

Degrade rapidly (BOD_Degradation : 90%/14days (METI existing chemical safety inspections, 1988))

Bioaccumulative potential

(Triethanolamine)

log Pow=-2.3 (ICSC, 2003)

(Ethylene glycol)

log Pow=-1.93 (ICSC, 1999)

(Methanol)

log Pow=-0.82/-0.66 (ICSC, 2000)

(Copper)

log Pow=-0.57 (calculated) (ICSC, 2016)

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

Avoid release to the environment.

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

Not applicable to ADG -Australian Dangerous Goodes Code

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

MARPOL Annex V – Prevention of pollution by garbage discharge

Carcinogenicity: cat.1, 1A, 1B

Silica (containing crystalline and amorphous SiO₂)

Reproductive toxicity: cat.1, 1A, 1B

Methanol

Specific target organ toxicity – repeated exposure: cat.1

Titanium dioxide; Barium sulfate; C.I. Pigment white 21

Hazardous to the aquatic environment – long-term hazard: cat.1, 2

Zinc

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. Y

Methanol

Noxious Liquid ; Cat. Z

Ethylene glycol; Titanium dioxide; Triethanolamine

Non Noxious Liquid ; Cat. OS

Silica (containing crystalline and amorphous SiO₂)

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

Aluminum oxide; Carbon black; Silica (containing crystalline and amorphous SiO₂);
Copper; Zinc; Titanium dioxide

Chemical Substances requiring Labeling and Deliver of Documents, etc.

Labeling, etc.

Carbon black; Silica (containing crystalline and amorphous SiO₂); Aluminum oxide;
Titanium dioxide; Ferric oxide; Copper; Methanol

Report required substances

Carbon black; Silica (containing crystalline and amorphous SiO₂); Aluminum oxide;
Titanium dioxide; Ferric oxide; Copper; Triethanolamine; Methanol

Chemical Substances Control Law, Japan

Priority Assessment Chemical Substances (PACSSs)

Methanol; Ethylene glycol; Triethanolamine

Pneumoconiosis Law, Japan

Silica (containing crystalline and amorphous SiO₂); Copper; Zinc; Aluminum oxide; Carbon black;
Titanium dioxide

Air Pollution Control Law, Japan

Hazardous air pollutants

Zinc; Copper

Specific substances

Methanol

Water Pollution Control Law, Japan

Listed substance(s)

Aluminum oxide; Ferric oxide; Copper; Zinc

Chemicals listed in TSCA Inventory

Methanol; Triethanolamine; Ethylene glycol; Ferric oxide; Carbon black; Aluminum oxide; Copper;
Zinc; Silica (containing crystalline and amorphous SiO₂); Barium sulfate; C.I. Pigment white 21;
Titanium dioxide

Superfund Amendments and Reauthorizations Act (SARA), Title III

SARA 313 (TRI)

Aluminum oxide; Copper; Zinc

California proposition 65

Cancer

Carbon black

Silica (containing crystalline and amorphous SiO₂)

Titanium dioxide

Reproductive Toxicity

Ethylene glycol

Methanol

Chemical safety assessment

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

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
Basel Convention (Hazardous Waste)
International Convention for the Prevention of Pollution from Ships (MARPOL)

This material/constituent(s) is covered by the following requirements:

All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

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