Date of revision : 09/06/2023

Safety Data Sheet

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

Product identifier:
Product name: ZIG CARTOONIST BRUSH PEN WHITE
SDS No. :G_PWC_1-3
Product No. :CNBW-01S

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
Carcinogenicity: Category 1A
Reproductive toxicity: Category 1A
Specific target organ toxicity - repeated exposure: Category 1
Specific target organ toxicity - repeated exposure: Category 2
ENVIRONMENT HAZARDS
Hazardous to the aquatic environment (Long-term): Category 4
Label elements

Signal word: Danger
HAZARD STATEMENT
H350 May cause cancer
H360 May damage fertility or the unborn child
H372 Causes damage to organs through prolonged or repeated exposure
H373 May cause damage to organs through prolonged or repeated exposure
H413 May cause long lasting harmful effects to aquatic life
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.
P264 Wash contaminated parts thoroughly after handling.
P280 Use personal protective equipment as required.
P270 Do not eat, drink or smoke when using this product.
Response

P314 Get medical advice/attention if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/attention.

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 (%)
Titanium dioxide	13463-67-7	16 - 36
Ethyl alcohol	64-17-5	1 - 5
Isopropyl alcohol	67-63-0	< 1

Components contributing to the hazard

Hazardous components related to GHS classification

Titanium dioxide , Ethyl alcohol , Isopropyl alcohol

Components corresnpond to health hazard symbol

Titanium dioxide , Ethyl alcohol

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.
IF exposed or concerned: Get medical advice/attention.

IF INHALED

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

IF ON SKIN (or hair)

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

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.

(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 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.

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

(Isopropyl alcohol)
Japan control value (2004) <= 200ppm

Control value in MHLW is not available.

Adopted value

(Titanium dioxide)
JSOH(Class 2 dust) (respirable dust) 1mg/m3; (total dust) 4mg/m3
(Isopropyl alcohol)
JSOH(1987) (ceiling) 400ppm; 980mg/m3
(Titanium dioxide)
ACGIH(1992) TWA: 10mg/m3 (LRT irr)
(Ethyl alcohol)
ACGIH(2008) STEL: 1000ppm (URT irr)
(Isopropyl alcohol)
ACGIH(2001) TWA: 200ppm;
STEL: 400ppm (Eye & URT irr; CNS impair)

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.
No 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 Classification scheme based on ingredients information and addivity formula]
Not contain any ingredients with Acute toxicity (Oral), accordingly Not

classified/Classification not possible
[GHS Cat. Japan, base data]
(Titanium dioxide)
rat LD50 >5000mg/kg (SIDS, 2015)
(Isopropyl alcohol)
rat LD50＝5480mg/kg (EHC 103, 1990)

Acute toxicity (Dermal)
[GHS Classification scheme based on ingredients information and addivity formula]
Not contain any ingredients with Acute toxicity (Dermal), accordingly Not classified/Classification not possible
[GHS Cat. Japan, base data]
(Titanium dioxide)
hamster LD50>10000mg/kg (HSDB, Access on May 2016)
(Isopropyl alcohol)
rabbit LD50=12870mg/kg (EHC 103, 1990)

Acute toxicity (Inhalation)
[GHS Classification scheme based on ingredients information and addivity formula]
Not contain any ingredients with Acute toxicity (Inhalation), accordingly Not classified/Classification not possible
[GHS Cat. Japan, base data]
(Titanium dioxide)
dust: rat LC50 >5.09mg/L (SIDS, 2015)

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation
[GHS Classification scheme based on ingredients information and additive calculation]
Not contain any ingredients with Skin Category, accordingly Not classified/Classification not possible

Skin corrosion/irritation data is not available.

Serious eye damage/irritation
[GHS Classification scheme based on ingredients information and additive calculation]
Ingredients classified as Eye Category 2
Isopropyl alcohol(0.112%)
Ingredients classified as Eye Category 2B
Ethyl alcohol(1.728%)
The sum of concentration of ingredients classified as Eye Category 2/2A/2B = 1.84%
10 x (Skin Category 1 + Eye Category 1) + Eye Category 2 < 10%, accordingly Not classified
[GHS Cat. Japan, base data]
(Ethyl alcohol)
rabbit recover within 7 days (ECETOC TR No.48(2), 1998 et al)
(Isopropyl alcohol)
rabbit (PATTY 6th, 2012 et al)

Serious eye damage/irritation data is not available.

Sensitization

Respiratory sensitization
[GHS Classification scheme based on ingredients information]
Not contain any ingredients with Respiratory sensitization, accordingly Not classified/Classification not possible

Skin sensitization
[GHS Classification scheme based on ingredients information]
Not contain any ingredients with Skin sensitization, accordingly Not classified/Classification not possible

Allergenic and sensitizing effects data is not available.

Germ cell mutagenicity

[GHS Classification scheme based on ingredients information]
Not contain any ingredients with Germ cell mutagenicity, accordingly Not classified/Classification not possible

Mutagenic effects data is not available.

Carcinogenicity

[GHS Classification scheme based on ingredients information]
Ingredients classified as Category 1A
Ethyl alcohol(1.728%)
Ingredients classified as Category 2
Titanium dioxide(36%)
Category 1A >= 0.1%, accordingly Category 1A
[GHS Cat. Japan, base data]
(Titanium dioxide)
cat.2; IARC Gr. 2B (IARC 93, 2010 et al.)
(Ethyl alcohol)
cat.1A; (IARC, 2010)
(Titanium dioxide)
IARC-Gr.2B : Possibly carcinogenic to humans
(Ethyl alcohol)
IARC-Gr.1 : Carcinogenic to humans
(Isopropyl alcohol)
IARC-Gr.3 : Not Classifiable as a Human Carcinogen
(Ethyl alcohol)
ACGIH-A3(2008) : Confirmed Animal Carcinogen with Unknown Relevance to Humans
(Isopropyl alcohol)
ACGIH-A4(2001) : Not Classifiable as a Human Carcinogen
(Titanium dioxide)
ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen
(Titanium dioxide)
JSOH-2B: Insufficient Evidence of Carcinogenicity for Humans

Reproductive toxicity

[Reproductive toxicity : GHS Classification scheme based on ingredients information]
Ingredients classified as Category 1A
Ethyl alcohol(1.728%)
Ingredients classified as Category 2
Isopropyl alcohol(0.112%)
Category 1A >= 0.3%, accordingly Category 1A
[Effects on or via lactation : GHS Classification scheme based on ingredients information]
Not contain any ingredients with effects on or via lactation, accordingly Not classified/Classification not possible
[GHS Cat. Japan, base data]
(Ethyl alcohol)
cat. 1A; human : PATTY 6th, 2012
(Isopropyl alcohol)
cat. 2; PATTY 6th, 2012

Teratogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT-single exposure

[GHS Classification scheme based on ingredients information]
Ingredients classified as Category 1
Isopropyl alcohol(0.112%)
Ingredients classified as Category 3 (Respiratory tract irritation)
Ethyl alcohol(1.728%); Isopropyl alcohol(0.112%)

Ingredients classified as Category 3 (Narcosis)
Ethyl alcohol(1.728%)
Not contain ingredients with Specific target organ toxicity - single exposure above the classification criteria, accordingly Not classified
[cat.3 (resp. irrit.)]
[GHS Cat. Japan, base data]
(Ethyl alcohol)
respiratory tract irritation (PATTY 6th, 2012)
(Isopropyl alcohol)
respiratory tract irritation (MOE risk assessment vol.6, 2005)
[cat.3 (drow./dizz.)]
[GHS Cat. Japan, base data]
(Ethyl alcohol)
narcotic effect (PATTY 6th, 2012; SIDS, 2005)
STOT-single exposure data is not available.
STOT-repeated exposure
[GHS Classification scheme based on ingredients information]
Ingredients classified as Category 1
Titanium dioxide(36%); Ethyl alcohol(1.728%); Isopropyl alcohol(0.112%)
Ingredients classified as Category 2
Isopropyl alcohol(0.112%); Ethyl alcohol(1.728%)
Category 1 >= 10%, accordingly Category 1
10% > Category 1 >= 1%, accordingly Category 2
[cat.1]
[GHS Cat. Japan, base data]
(Titanium dioxide)
respiratory system (SIDS, 2015)
(Ethyl alcohol)
liver (DFGOT vol.12, 1999)
[cat.2]
[GHS Cat. Japan, base data]
(Ethyl alcohol)
central nervous system (HSDB, Access on Jun. 2013)
STOT-repeated exposure data is not available.
Aspiration hazard
[GHS Classification scheme based on ingredients information]
Not contain any ingredients with Aspiration hazard, accordingly Not classified/Classification not possible
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity
Aquatic toxicity
May cause long lasting harmful effects to aquatic life
Hazardous to the aquatic environment (Acute)
[GHS Classification scheme based on ingredients information and summation method]
Not contain any ingredients with Hazardous to the aquatic environment (Acute), accordingly Not classified/Classification not possible
Hazardous to the aquatic environment (Long-term)
[GHS Classification scheme based on ingredients information and summation method]
Ingredients classified as Category 4
Titanium dioxide(36%)
The sum of concentration of Category 4 = 36%

The sum of concentration of Category 1 + Category 2 + Category 3 + Category 4 = 36%
Not classified as either Category 1, Category 2 or category 3, but Category 1 + Category 2 + Category 3 + Category 4 >=25%, accordingly Category 4

Water solubility

(Titanium dioxide)
none (ICSC, 2002)
(Ethyl alcohol)
miscible (ICSC, 2000)
(Isopropyl alcohol)
In water, infinitely soluble (25℃) (HSDB, 2013)

Persistence and degradability

(Ethyl alcohol)
Degrade rapidly (BOD_Degradation : 89% (Registered chemicals data check & review, 1993))
(Isopropyl alcohol)
Degrade rapidly (Degradation : 86% (Registered chemicals data check & review, 1993))

Bioaccumulative potential

(Ethyl alcohol)
log Pow=-0.32 (ICSC, 2000)
(Isopropyl alcohol)
log Pow=0.05 (ICSC, 1999)

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 (- if this is not the intended use).
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
Ethyl alcohol
Reproductive toxicity: cat.1, 1A, 1B
Ethyl alcohol
Specific target organ toxicity - repeated exposure: cat.1
Titanium dioxide
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
Isopropyl alcohol; Ethyl alcohol; Titanium dioxide
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
Titanium dioxide
Chemical Substances requiring Labeling and Deliver of Documents, etc.
Labeling, etc.
Ethyl alcohol; Titanium dioxide
Report required substances
Ethyl alcohol; Titanium dioxide; Isopropyl alcohol
Chemical Substances Control Law, Japan
Priority Assessment Chemical Substances (PACSs)
Isopropyl alcohol
Pneumoconiosis Law, Japan
Titanium dioxide
Water Pollution Control Law, Japan
Listed substance(s)
Chemicals listed in TSCA Inventory
Ethyl alcohol; Isopropyl alcohol; Titanium dioxide
California proposition 65
Cancer
Titanium dioxide
Chemical safety assessment

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

16. Other information

GHS classification and labelling

Carc. 1A: H350 May cause cancer
Repr. 1A: H360 May damage fertility or the unborn child
STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure
Aquatic Chronic 4: H413 May cause long lasting harmful effects to aquatic life

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
EU REGULATION (EC) No. 1272/2008 (CLP), amended by COMMISSION REGULATION (EU) 2019/521
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2020 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer