MATERIAL SAFETY DATA SHEET

DATE PREPARED : 20.AUG.2020

DATE OF REVISION:

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifiers

Product Name : Sailing Gold gold color • Silver color paiting

Relevant idetified uses of the substance or miture and uses advised against

Identified Uses : Paint
Serial Number : KT0050

Details of the supplier of the safety data sheet

Company : HORI METAL LEAF&POWDER CO.,LTD.

GOKOMACHI-HIGASHIIRU,OIKEDORI,

NAKAGYO-KU,KYOTO,JAPAN

Phone : 0081-75-231-5357 (Person in charge:Mr. Masahiro Hayashi/Technical Dept.)

Fax : 0081-75-231-5357 E-mail address : :post@horikin.co.jp

Emergency telephone number

Emergency phone : 0081-75-231-5357

2 HAZARD IDENTIFICATION

CLASSIFICATION (GHS) OF THE SUBSTANCE OR MIXTURE

 ${\bf Physical/Chemical\; Hazard} \;\;:\;\; {\bf Out\; of\; Classification}$

Harm for Helth : Acute Toxicity (Oral) Category 2

: Acute Toxicity (Skin) Category 4 : Acute Toxicity (Inhalation: Gas) Category 3

: Acute Toxicity (Inhalation:Vapor) Not Classification

: Acute Toxicity (Inhalation:Dust, Mist)
 : Skin Irritation/Corrosivity
 : Severe Eye Injury/Eye Irritation
 Category 2
 Category 2

Respiratory Organs Sensitization (Solid/Liquid)
 Respiratory Organs Sensitization (Gas)
 Skin Sensitization
 Not Classification
 Not Classification

: Germ-Cell Mutagenicity
 : Carcinogenicity
 : Reproduction Toxicity
 Category 2
 : Category 2

: Additional Category for the Affection to Not Classification

through breast-feed

Specific Target Organ/Whole Body Toxicity (Single Exposure) Category 1.2
 Specific Target Organ/Whole Body Toxicity (Repeated Exposure) Category 1.2
 Aspiration Respiratory Harmfulness Not Classification

Environmental Hazard : Aquatic Environmental Harmfulness (Acute) Category 3

: Aquatic Environmental Harmfulness (Chronic) Not Classification

LABEL ELEMENTS

Pictgram







Signal Word

Hazard Statement

Danger

Highly flammable liquids and vapors

Harmful if swallowed

Harmful if in contact with skin

Harmful by inhalation (vapor)

Skin irritation

Serious eye irritation

Suspected fear of genetic disease

Suspected of carcinogenicity

Fear of adverse effects on fertility or the unborn child

Disorders of organs (pancreas, nerves, liver, blood, kidneys, respiratory organs)

Fear of organ (lung, kidney) damage

Fear of irritation to organs (respiratory organs)

Damage to organs (nerve, kidney, liver, peripheral nervous system) due to long-term or repeated exposure

May cause damage to organs (blood, nerves) due to long-term or repeated exposure

Harmful to aquatic life

Precautionary Statement

(Read SDS certainly before handling or use)

<Pre><Pre>cautionary Measures>

: Keep container tightly closed.

Stop eating or smoking when use.

: Wear appropriate protection gloves/eye protection/face guard/protection clothes.

: Wash hands thoroughly after handling.

<Counter Plan>

: Make a suitable extinguishing method when fire.

Swallowing: See a physician if unpleasant. Wash mouth well.

: Inhallation : Move to the fresh air area and rest with relaxed pose for sufficient breath.

If needed, see a physician.

: Eye : Rinse cautiously with water for several minutes. Remove contact lenses

if present, and possible to do so. Continue rinsing. Consult an oculist

if having an irritation

Skin or Hair: Wash with soap and a plenty of water. See a doctor if unpleasant or skin

irritation.

<Storage>

Direct sunshine is strictly prohibited. Packed into the closed container and store in a well-ventilated, cool and dark place because of easy polymerrization by UV rays or heat.

<Disposal>

Dispose of the content and container in accordance with the regulations stipulated by each local government.

3 COMPOSITION INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION

| | Mixtures |
|---|----------|
| ٠ | MINTOLES |

| INGREDIENT | CONTENT
(%) | CAS No. |
|------------|----------------|-----------|
| Alminium | 2.0-6.0 | 7429-90-5 |

| Resin | 2.0-7.0 | 9003-22-9 |
|-----------------|------------|-----------------------|
| Ethyl asetate | 2.0-4.0 | 141-78-6 |
| MEK | 5.0 - 15.0 | 78-93-3 |
| Oil | < 0.2 | 63742-88-7/64742-95-6 |
| Cyclohexanone | 45.0-55.0 | 108-94-1 |
| Butylcellosolve | 10.0-20.0 | 7580-85-0 |
| Oil | 5.0-10.0 | 64742-94-5 |
| Pigments | 3.0-8.0 | 3.0-8.0 |

4 FIRST AID MEASURES

Inhalation : Move to the fresh air area and keep warm and rest. If necessry, consult a physician.

Skin : Wash with a plenty of water. Cosult a doctor for inflammation.

Eye : Immediately rinse cautiously with clean water for 15 minutes. Consult an oculist.

Ingestion : Wash mouth and take the rest. Immediately see a physician.

Anticipated Acute / Late : (Inhalation) Irritation of Respiratory, Cough, Giddiness, Sore Throat,

Symptom Loss of Consciousness

(Skin) Irritation, Degreasing and Rubefaction

(Eye) Irritation, and Rubefaction

(Ingestion) Irritation of Digestive, Nauseaa Sickly Feeling, Vomiting and Diarrheal

5 FIRE FIGHTING MEASURES

Extinguishing Media : Dry Sand, Powder, Foam

Prohibitive Extinguishant : Straight Stream of Water is unsuitable (Danger)

Specific Hazard arising from Substance or Mixture

May emit stimulative, toxic or corossive gas.

May occur polymerization by heating, and then might ignite.

May occur polymerization by heating, and then might explode.

No spontaneous combustion.

Specific Fighting Measure : In case of expanding the fire by sprinkling water, use the suitable extinguishing media

stated as above except for sprinkling water.

Use foam extinguishing media to cut off the air for large scale fire.

Remove the container from fire area if not dangerous & possible. If impossible,

cool down the container and surrouding area sufficiently with a plenty of splinkling water.

Furthermore cool down the container with water after extinction.

Protection of Firefighters : Firefighters should be equipped with protective apparatus and never do it under

the lee. Especially, pay the caustion not to inhale toxic gas.

6 ACCIDENTAL RELEASE MEASURES

Cautions, Protection Apparatus & Emmergency Counter-Plan

: Wear a protective apparatus (Ref. Chapter 8) and keep eye and skin off the contact or avoid inhalation of gas. Make the insulated area as spillage range with the suitable

distances of every direction.

Cautions for Ecology : Exercise reasonable care and attention not to drain the waste water into the rivers

(Recovery, Neutralization) : In case of leakage, prevent the diffusion of leakage and scoop up the effluent materials

or absorb them into the absorber in order to recover them in the sealed vessel.

(Absorber: Sawdust, Earth, Sand & Waste Cloth)

Containment and Decontamination Measures & its Apparatus,

: Hold the leakage if not dangerous.

: All apparatus for handling leakage should be earthed.

Preventive Action for Secondary Disaster

: Shut off all sources of ignition at once near the leakage and prepare the extinguisher

: Prevent the inflow to drainage, drain, basement and closed area.

7 HAMDLING AND STORAGE

Handling : No flares, smoking or flames in area. Sufficient ventilation should be done in the working

zone. Wear appropriate protection apparatus while handling.

If adhesion on working wear, remove it, and wash hands & mouth well.

Waste cloth after wiped the leakage out should be burnt or abandoned immediately.

Contact Avoidance : See "Chapter 10 : Stability and Reactive".

Storage

Suitable Storage Condition: Keep at cool & dark place well-ventilated.

Follow Fire Prevention Ordinance if the quantity is more than the designated amount.

Reaction Hazard : See "Chapter 10 : Stability and Reactive".

Container, Packing Materia: Use the container stipulated by the Fire Service Act or U. N. Recommendations on the

Transport of Dangerous Goods.

8 EXPOSURE CONTROLS/PERSONEL PROTECTION

Occupational Exposure Limits

| Ingredient | | Control Value | Allowable Concentration | |
|------------|--|---------------|-------------------------|------------------|
| | | | JSOH* | ACGIH |
| Aluminum | |)mg/m3 | 0.5mg/m3 | 10mg/ m ³ |
| | | | | |

*Japanese Society of Occupational Health

Engineering Measures : Close the container tightly in case of using in room or do sufficient

ventilation. Instal the safety shower, hand washing apparatus and eyes washable

apparatus near to the working area.

Protection Apparatus

Respiratory : Dust Respirators Hands : Oil Proof Gloves

Eyes : Safety Glasses with Side Shields or Chemical Splash Goggles

Skin Gloves, Coveralls, Apron and Boots.

Sanitation : Absorbent of the mask should be changed periodically or before every use.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid (Gold Color)
Order : It smells of ketone.

Melting /Solid Point : No Data **Boiling Point** : No Data : -9°C Flash Point : No Data Auto-ignition Temp. **Explosive Limits** : No Data Vapor Pressure : No Data Vapor Density (Air=1) : No Data Specific Gravity : No Data

Solubility : It's insoluble in water.

Partition Coefficient : No Data

(N-Octanol/Water)

Decomposition Temp. : No Data

10 STABILITY AND REACTIVITY

Stability : Stable under the ordinary conditions (ordinary temperature & atmospheric pressure)

Polymerization occurs by UV rays or heating.

Ignition and generation of gas happen at high temperature.

Conditions to avoid : Heat

11 TOXICOLOGICAL INFORMATION

Harmful Information for Ingredients

| Ingradiant | Content (%) | | ļ | Acute Toxicity | |
|------------|-------------|------------------|---------|--------------------|---------|
| Ingredient | Content (%) | Oral Toxicity | (mg/kg) | Dermal Toxicity | (mg/kg) |
| Aluminium | 2-6 | Not Classificati | on | Not Classification | |

| Ingredient | Content (%) | , | Acute Toxicity | |
|------------|--------------|-----------------------|--------------------|-------|
| Ingredient | Content (10) | Inhalation:Gas (ppmv) | Inhalation:vapour | (ppm) |
| Aluminium | 2-6 | Out of Classification | Not Classification | |

| Indredient | Content (%) Acute Toxicity Inhalation:Dust (ppm) | Skin Corrosiveness/Irritation | |
|------------|--|-------------------------------|--------------------|
| Indredient | | Inhalation:Dust (ppm) | Category |
| Alumnium | 2-6 | Not Classification | Not Classification |

| Ingredient | Content (%) | Content (%) Severe Eye Injury | Respiratory/Skin Sensitization |
|------------|-------------|-------------------------------|---|
| Ingledient | Content (%) | | Materials for Respiratory Sensitization |
| Aluminium | 2-6 | Not Classification | Not Classification |

| Ingredient | Content (%) | Respiratory/Skin Sensitization | Germ-Cell Mutagenicity |
|------------|--------------|----------------------------------|------------------------|
| Ingredient | Oontent (/// | Materials for Skin Sensitization | Germ Gen Mutagemony |
| Aluminium | 2-6 | Not Classification | Not Classification |

| Ingredient | Content (%) | Carcinogenic | Reproduction Toxicity |
|------------|-------------|--------------------|-----------------------|
| Aluminium | 2-6 | Not Classification | Not Classification |

| Ingredient | Content (%) | Specific Target Organ/Whole Body Toxicity (Single Exposure) |
|------------|-------------|---|
| Aluminium | 2-6 | Not Classification |

| Ingredient | Content (%) | Specific Target Organ/Whole Body Toxicity (Repeated Exposure) |
|------------|-------------|---|
| Aluminium | 2-6 | Category 2 |

| Ingredient | Content (%) | Aspiration Harmfulness | Aquatic Environment | Aquatic Environment |
|------------|-------------|------------------------|---------------------|-----------------------|
| | | Respiratory | Harmfulness (Acute) | Harmfulness (Chronic) |
| Aluminium | 2-6 | Not Classification | Not Classification | Category 4 |

12 ECOLOGICAL INFORMATION

No Data Identified

13 DISPOSAL CONSIDERATIONS

When discarding of the contents and the container, we suggest to commissions the treatment to the industrial waste treatment company who obtains the permission of the authorities.

Don't discharge the waste water from rinsing of the containers or equipments to the land or drain.

And also, waste materials gained by the waste water treatment or incineration should be treated in accordance with the laws or regulations for it. Or commission it to the official treatment company.

14 TRANSPORT INFORMATION

International Regulations

UN Number : 1263
UN Proper Shipping Name : PAINT
Hazard Class : 3
Packing Group : II

Domestic Regulations

UN Number : 1263 Guideline Number : 128

Transportation by Land : Follow the way stipulated in Fire and Disaster Management Act/Industrial Safety and

Transportation by Sea : Follow the way in Ship Safety Act.

Transportation by Air : Follow the way in Aviation Law.

Cautions on Transporta-

: For the handling and storage, see Chapter 7.

tion

: On the occasion of transportation, it confirms that there is no leak in a container and package, it loads that there may not be a fall, drop and damage, and collapse-of- cargo-

piles prevention is ensured.

15 REGULATORY INFORMATION

Industrial Safety and Health : Substance subject to reporting---Article 57-Item 2 (Cyclohexanone Ethyl asetate

Notice Indication. Butylcellosolve • MEK)

PRTR Law : Not appricable
Fire & Disaster Management : Inflammable fluid

Act/Fire Prevention Ordinance Regulation

Poisonous & Deleterious : Not appricable

Substances Control Law

16 OTHER INFORMATION

Disclaimer

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar we do not assume any responsibility

for the results of its use and all persons receiving it must make their own determination of the effects, properties, protections and disposal which pertain to their particular conditions. No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material. The above information is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a subustitute for consultation with appropriately trained personnel.

Literatures on this subject : ACGIH (2006).

: International Chemical Safety Card (ICSC). http://www.nihs.go.ip/ICSC

: Kanagawa Environmental Reserch Data Base.

http://www.k-erc.pref.kanagawa.jp

: Independent Administrative Corporation "National Institute of Technology and Evaluation (NITE)" Data Base for GHS Classification.

: Text how to make MSDS of the mixture (Chemicals) corresponding to GHS form. (The Japan Industrial Safety and Health Association)

: Japanese Society of Occupational Health (2006–2007)

http://joh.med.uoeh-u.ac.jp/oel/index.html

: Literatures for Material Safety Data Sheet : Rev. 3 Edition JIS Z7250 for 2005. (Printing Ink Industrial Federation)

: OSHA

: Chemicsals Data Base (Japanese Chemical Data Base)

: List of Controlled Substances Act (Japanese Chemical Data Base)

: GHS Classification Data Base (NITE)