**1.CHEMICAL PRODUCT AND IDENTIFICATION** 

| Chemical product name:      | TURNER ACRYL GOUACHE  |
|-----------------------------|---|
| Color name:                 | Ramp Black  |
| Name of manufacturer:       | Turner Colour Works Ltd.  |
| Address:                    | 2–15–7, Mitsuyakita, Osaka Shi Yodogawa Ku, Osaka Fu, 532–0032, Japan |
| Name of section:            | R&D   |
| Phone number:               | :+81-(0) 6-6308-1216  |
| Emergency call:             | :+81-(0) 6-6308-1216  |
| Fax number:                 | :+81-(0) 6-6305-3018  |
| E-MAIL:                     | <u>kenkyuu@turner.co.jp</u>   |
| Revised Date / Issued Data: | APR.13.2019   |
| Form No.:                   | 2007-02   |
|                             |   |

## **GHS Classification**

**Physical Hazards:** 

Without the need of classification

Health Hazards:

| Carcinogenicity   | CATEGORY 2 |
|---|------------|
| Reproductive toxicity                                       | CATEGORY 2 |
| Specific target organ systemic toxicity (single exposure) : | CATEGORY 2 |

**Environment Hazards:** 

Without the need of classification

Hazard symbol



Signal word

warning

## Hazard statement

- H351 Suspected of causing cancer.
- H361 Suspected of damaging fertility or the unborn child .
- H371 May cause damage to organs . (the central nervous, liver, kidney, blood)

| Precautionary statements |   |
|--------------------------|---|
| Security precaution:     |   |
| P201                     | Obtain special instructions before use.   |
| P202                     | Do not handle until all safety precautions have been read and understood.                             |
| P260                     | Do not breathe dust/fumes/gas/mist/vapours/spray.   |
| P264                     | Wash hands thoroughly after handling.   |
| P270                     | Do not eat, drink or smoke when using this product.   |
| P280                     | Wear protective gloves/protective clothing/eye protection/face protection.                            |
| Response:                |   |
| P308+P313                | IF exposed or concerned: Get medical advice/attention.  |
| storage:                 |   |
| P405                     | Store locked up.  |
| Disposal:                |   |
| P501                     | Properly dispose of to be in accordance with the laws and regulations of the contents $/$ container . |

## **3.COMPOSITION/INFORMATION ON INGREDIENTS**

## Substance/Mixture: Mixture

eneral product description: Acrylic emulsion paints

Ingredients and composition:

| components  | CAS No.     | (%)    |
|---|-------------|--------|
| Acrylic ester copolymer aqueous emulsion                  | seclet      | 13.6%  |
| Calcium carbonate   | 471-34-1    | 32.8%  |
| Sodium aluminum silicate                                  | 1344-00-9   | 4.9%   |
| Carbon black  | 1333-86-4   | 4.9%   |
| Styrene-maleic acid monoester copolymer soda salt         | 360050-99-3 | 3.1%   |
| 1,2-Propanediol   | 57-55-6     | 1.6%   |
| Thickener   | seclet      | 1.6%   |
| Rheology Modifier   | seclet      | 1.1%   |
| Antifoaming Agent   | seclet      | 0.7%   |
| 3-Hydroxy-2,2,4-trimethylpentyl Isobutyrate               | 25265-77-4  | 0.7%   |
| Poly (oxy-1,2-ethanediyl),a-phenyl-w-hydroxy-, styrenated | 104376-75-2 | 0.6%   |
| 2-Amino-2-methyl-1-propanol                               | 124-68-5    | 0.4%   |
| Hydroxyethyl Cellulose                                    | 9004-62-0   | 0.3%   |
| 1,2-Benzisothiazol-3 (2H) -one                            | 2634-33-5   | 0.2%   |
| Sodium Hexametaphosphate                                  | 10124-56-8  | 0.2%   |
| 2-Butylbenzo [d] isothiazol-3 (2H) -one                   | 4299-07-4   | 0.1%   |
| 2-Chloroacetamide   | 79-07-2     | 0.0%   |
| <br>Water   | 7732-18-5   | 33.2%  |
|   |             | 100.0% |

|               | 4.FIRST – AID MEASURES  |
|---------------|---|
|               | Immediately wash it with plenty of clean running water for at least 15 minutes.<br>Remove contact lenses when worn and can be easily removed. |
|               | Wash thoroughly to the back of the eyelids.   |
|               | Get medical attention as soon as possible.  |
| Skin contact: | Quickly wipe off deposits with cloth.   |
|               | Wash thoroughly with large amounts of water and soap or skin detergent. Do not use solvent or thinner.  |
|               | If there is a change in appearance, stimulation / pain, if you feel uncomfortable get a doctor's diagnosis.                                   |
| Inhalation:   | If you feel bad by inhaling steam, gas, etc.move to a fresh air place and rest in a posture that is easy to breathe.                          |
|               | If you feel unwell, call a doctor.  |
|               | If symptoms persist, call a doctor.   |
| Ingestion:    | If swallowed by mistake, it and consult a doctor immediately to rest.   |
|               | Be so as not to swallow the vomit.  |
|               | Do not induce vomiting except in the physician's instructions.  |

5.FIRE – FIGHTING MEASURES

Specific hazards regarding with fire fighting measure:

Apply water from a safe distance to cool and project surrounding area.

Firefighters should wear proper protective equipment and self-breathing apparatus.

Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand.

Hazardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.

|                            | 6.ACCIDENTAL RELEASE MEASURES  |
|----------------------------|--|
| Personal precautions:      | Wear proper protective equipment.  |
|                            | In case of insufficient ventilation, wear suitable respiratory equipment.  |
|                            | Shut off all sources of ignition.  |
|                            | Avoid contact with skin and eyes.  |
|                            | Remove ignition sources and ventilate the area.  |
|                            | Evacuate personnel to safe area.evacuate non-essential personnel.  |
| Environmental precautions: | Do not wash away into sewer,watercourse or river.  |
|                            | Prevent product from discharging into the environment.   |
|                            | After collecting spills, wash with plenty of water and dispersing agent.   |
| Methods for cleaning up:   | Collect the spill into a sealable container and transfer it to a safe place.   |
|                            | Handle deposits, waste, etc. according to relevant laws and regulations.   |
|                            | Recovers with scoops, waste etc.   |
|                            | Put all wastes in a plastic bag for disposal and seal it tightly.  |
|                            | In case of large amount of embankment etc. to prevent spills. Washing with water, etc.,                              |
|                            | also cause emissions to rivers and the like, causing environmental pollution, so be careful.                         |
|                            | 7.HANDLING AND STORAGE   |
| Handling: Handle in a v    | vell-ventilated place.   |
| Keep contair               | ners tightly closed each time.   |
| Touch the sk               | kin, mucosa, or clothing, and wear protective equipment to prevent contact with eyes.                                |
| Wash hands,                | face etc thoroughly after handling, do not bring pollution protective equipment such as gloves to resting place etc. |
|                            |  |

Storage: Keep out of the reach of children. Keep container in a well-ventilated place. Keep away from food,drink and animal feedingstuffs.

## 8.EXPOSURE CONTROLS/PERSONAL PROTECTION

| Ingredient(s) | Exposure Limits (ACGIH-TLV) |
|---------------|-----------------------------|
| Carbon black  | 3 mg/m3                     |
|               |                             |
|               |                             |
|               |                             |
|               |                             |

Exposure controls

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits.

Personal protective equipment

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

Appearance: Liquid. Colour: black Odour: Singular smell pH: 8.0 - 9.0 Boiling point / boiling range: 100℃(Water) Melting point / melting range: No information available. Flash point: No flash point Flammability (solid, gas): No flammable Explosive properties: No information available. Oxidising properties: No information available. Vapour pressure: No information available. Relative density (of concentrate): 1.36 Solutility (in water) (of concentrate): Complete. Solutility (in oil) (of concentrate): Impossible Partition coefficient: n-octanol/water: No information available. Viscosity (of concentrate): No information available. Miscibility: No information available. Vapor density: No information available. Evaporation rate: No information available. Auto-ignition temperature: No information available. Lower Flammability Limit: No information available. Upper Flammability Limit: No information available.

## 10.STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Conditions to avoid: No dangerous reaction known under conditions of normal use.

Incompatible hazardous substance: Reacts with oxidizing substances.

Hazardous decomposition products: If this material does not burn, if the coating etc. burns, it may generate harmful gas such as CO, NOx, halogen gas.

### **11.TOXICOLOGICAL INFORMATION**

No information as mixture Hazard information on ingredients

Carbon Black

Carcinogenicity

**CATEGORY 2** 

| Component    | Acute toxicity |                          |                  | Carcinogenicity |
|--------------|----------------|--------------------------|------------------|-----------------|
| Component    | ORAL(mg/kg)    | <pre>DERMAL(mg/kg)</pre> | INHALATION(mg/L) | (IARC)          |
| Carbon Black | Rat:>15400     | >3000                    | _                | 2B              |
|              |                |                          |                  |                 |
|              |                |                          |                  |                 |
|              |                |                          |                  |                 |
|              |                |                          |                  |                 |

#### **12.ECOLOGICAL INFORMATION**

No information as mixture

Hazard information on ingredients

| Component    | HAZARDOUS TO THE AQUATIC<br>ENVIRONMENT (ACUTE) | HAZARDOUS TO THE AQUATIC<br>ENVIRONMENT (CHRONIC) |
|--------------|---|---|
| Carbon Black | Not classified                                  | Not classified                                    |
|              |   |   |
|              |   |   |
|              |   |   |
|              |   |   |

#### **13.DISPOSAL CONSIDERATIONS**

Do not dump sewers,on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name,catalog number quantity of the material. Disposal must be made according to official regulations.

#### **14.TRANSPORT INFORMATION**

## Land transport

Not classified as a dangerous good under transport regulations.

#### Inland waterway transport

Not classified as a dangerous good under transport regulations.

#### Sea transport

Not classified as a dangerous good under transport regulations.

#### Air transport

Not classified as a dangerous good under transport regulations.

#### UN No.

#### Not applicable

It does not fall under the dangerous goods under the UN Recommendation.

#### **15.REGULATORY INFORMATION**

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

Japanese Regulatory Data ■Industrial Safety and Health Act Article 57-2 of the Act Article 18-2 of the Enforcement Order Appended Table 9 Carbon Black

## **16.0THER INFORMATION**

## Disclaimer: Cary AP mark .

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION

Chemical product name: ACRYL GOUACHE① Original Colors

Name of manufacturer: Turner Colour Works Ltd.

Address: 2-15-7 mitsuyakita yodogawa-ku,Osaka-fu,Japan

Name of section: R&D

Phone number: :+81-(0)6-6308-1216

Emergency call: :+81-(0)6-6308-1216

Fax number: :+81-(0)6-6305-3018

E-MAIL: kenkyuu@turner.co.jp

Revised Date / Issued Data: Mar. 29, 2018

Form No. : 1340-03

Colors: ■Mixing White, White, Neutral Grey 8, Neutral Grey 7, Neutral Grey 5, Lamp Black, Opera Red, Pink, Coral Red, Chinese Red, Jaune Brilliant, Naples Yellow, Yellow Ocher, Venetian Red, Emerald Green, Permanent Yellow Green, Permanent Green Light, Permanent Green Deep, Deep Green, Olive Green, Viridian (Hue), Peacock Blue, Sky Blue, Cobalt Blue (Hue), Prussian Blue (Hue), Turquoise Blue, Light Blue, Lilac, Rose Pink, Raw Sienna, Mustard, Apricot, Dandelion, Ivory Yellow, Maize Yellow, Fresh Green, Aqua Green, Ivy Green, Cyprus, Beryl Green, Spring Green, Horizon Blue, Aqua Blue, Blue Compose, Ultramarine Light, Night Blue, Spring Blue, Marine Blue, Brght Magenta, Mixing Magenta, Mixing Violet

2. HAZARDS IDENTIFICATION

**GHS Classification** 

| GHS Physical Hazards:                 | Not applicable. |
|---------------------------------------|-----------------|
| GHS Health and Environmental Hazards: | Not applicable. |
| hazard pictograms:                    | Not applicable. |
| Signal word:                          | Not applicable. |
| Hazard statements:                    | Not applicable. |

Precautionary statements: Other hazards:

Not applicable. Not applicable.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture General product description: Acrylic emulsion paints

|                              |                               | CAS No.    | Remarks  |
|------------------------------|-------------------------------|------------|----------|
| Ingredients and composition: | acrylic emulsion              | -          |          |
|                              | carbon black                  | 1333-86-4  |          |
|                              | antimony nickel complex oxide |            | PRTR Law |
|                              | zirconium dioxide             | 1314-23-4  |          |
|                              | hafnium oxide                 | 12055-23-1 |          |
|                              | silicon oxide                 | 7631-86-9  |          |
|                              | C.I.Pigment Blue 15           | 147-14-8   |          |
|                              | C.I.Pigment Green 7           | 1328-53-6  |          |
|                              | titanium dioxide              | 13463-67-7 |          |
|                              | ferric oxide                  | 1309-37-1  |          |
|                              | iron hydroxide oxide yellow   | 51274-00-1 |          |

| Composition Ingredient(%) | colors        | antimony nickel complex oxide |              |
|---------------------------|---------------|-------------------------------|--------------|
|                           | NAPLES YELLOW | as Sb<br>1-2%                 | as Ni<br>-5% |

## 4. FIRST - AID MEASURES

|               | 4. FINST - AID MEASURES  |
|---------------|--|
| Eye contact:  | Remove any contact lenses at once.   |
|               | Flush eyes well with flooding amounts of running water for at least 15minutes.       |
|               | assure adequate flushing be separating the eyelids with sterile fingers.             |
|               | If irritation oersists, consult a physician.   |
| Skin contact: | Remove all contaminated clothing   |
|               | Washthe affected area with plenty of water with mild soap                            |
|               | If irritation is continued, refer to medical attention.                              |
| Inhalation:   | Remove the victim from the contamination immediately to fresh air.                   |
|               | If breathing is weak, irregular or has stopped, open his airway, loosen his and belt |
|               | and adminisiter artificial respiration. And refer for medical attention.             |
|               | Do not induce vomiting and refer to medical attention.                               |
|               | never give anything to someone who is unconscious.                                   |
|               |  |

#### 5. FIRE - FIGHTING MEASURES

Specific hazards regarding with fire fighting measure:

Apply water from a safe distance to cool and project surrounding area. Firefighters should wear proper protective equipment and self-breathing apparatus. Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand. Hazardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.

#### 6. ACCIDENTAL RELEASE MEASURES

#### 7. HANDLING AND STORAGE

| Handling: Keep away from sources of ignition No smoking. Avoid contact with eyes.      |  |
|--|--|
| Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray.         |  |
| Use only in well-ventilated areas.When using do not eat or drink.                      |  |
| Wash hands before breaks and immediately after handling the product.                   |  |
| Storage: Keep out of the reach of children. Keep container in a well-ventilated place. |  |
| Keep away from food, drink and animal feedingstuffs.                                   |  |
|  |  |

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Ingredient (s)                | Exposure Limits (ACGIH-TLV) |
|-------------------------------|-----------------------------|
| carbon black                  | 3.5mg/m3                    |
| antimony nickel complex oxide | O.5mg/m3,as Sb              |
| antimony nickel complex oxide | O.2mg/m3,as Ni              |
| zirconium dioxide             | 5mg/m3 (TWA),as Zr          |
| hafnium oxide                 | 0.5mg/m3 (TWA),as Hf        |
| silicon oxide                 | 10mg/m3 (TWA)               |
| C.I.Pigment Blue 15           | -                           |
| C.I.Pigment Green 7           | -                           |
| titanium dioxide              | 10mg/m3                     |
| ferric oxide                  | 5mg/m3,as Fe                |
| iron hydroxide oxide yellow   | 5mg/m3,as Fe                |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits. Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

| 9. PHYSICAL AND CHEMICAL PROPERTIES                               |
|---|
| Physical State: Liquid.   |
| Colour: By color  |
| Odour: Slight   |
| pH: 8.0 - 9.0   |
| Boiling point / boiling range: 100°C (water)                      |
| Melting point / melting range: No information available.          |
| Flash point: No information available.                            |
| Flammability (solid, gas): No information available.              |
| Explosive properties: No information available.                   |
| Oxidising properties: No information available.                   |
| Vapour pressure: No information available.                        |
| Relative density (of concentrate): 1.1 - 1.6                      |
| Solutility (in water) (of concentrate): Complete.                 |
| Solutility (in oil) (of concentrate): Impossible                  |
| Partition coefficient: n-octanol/water: No information available. |
| Viscosity (of concentrate): No information available.             |
| Miscibility: No information available.                            |
| Vapor density: No information available.                          |
| Evaporation rate: No information available.                       |
| Auto-ignition temperature: No information available.              |
| Lower Flammability Limit: No information available.               |
| Upper Flammability Limit: No information available.               |
|   |

10. STABILITY AND REACTIVITY Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

| ■carbon black                              |  |  |
|--|--|--|
| Acute toxicity-ORAL: LD50:>15400mg/kg(rat) |  |  |
| ■antimony nickel complex oxide             |  |  |
| No information available.                  |  |  |
| ■antimony nickel complex oxide             |  |  |
| No information available.                  |  |  |
| ■zirconium dioxide                         |  |  |
| No information available.                  |  |  |
| ■hafnium oxide                             |  |  |
| No information available.                  |  |  |
| ∎silicon oxide                             |  |  |
| No information available.                  |  |  |
| ■C.I.Pigment Blue 15                       |  |  |
| Acute toxicity-ORAL: LD50:>2000mg/kg(rat)  |  |  |
| ■C.I.Pigment Green 7                       |  |  |
| Acute toxicity-ORAL: LD50:≧5000mg/kg(rat)  |  |  |
| ■titanium dioxide                          |  |  |
| Acute toxicity-ORAL: LD50:>10000mg/kg(rat) |  |  |
| ■ferric oxide                              |  |  |
| No information available.                  |  |  |
| ■iron hydroxide oxide yellow               |  |  |
| No information available.                  |  |  |
|  |  |  |

12. ECOLOGICAL INFORMATION

| Toxicity                           | No further relevant information available. |  |
|------------------------------------|--|--|
| Aquatic toxicity:                  | No further relevant information available. |  |
| Persistence and degradability:     | No further relevant information available. |  |
| Behavior in environmental systems: | No further relevant information available. |  |
| Bioaccumulative potential:         | No further relevant information available. |  |
| Mobility in soil:                  | No further relevant information available. |  |
| Additional ecological information: | No further relevant information available. |  |

### 13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■ Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

■Air transport Not classified as a dangerous good under transport regulations.

■UN No. Not applicable It does not fall under the dangerous goods under the UN Recommendation.

#### 15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

■Law concerning Pollutant Release and Transfer Register / PRTR Law antimony and its compounds(Class1 No. 31), nickel compounds(class1 No. 309)

#### 16. OTHER INFORMATION

## Disclaimer: Original Colors carry AP mark.

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION

Chemical product name: ACRYL GOUACHE② Original colors / Japanesque colour series Name of manufacturer: Turner Colour Works Ltd. Address: 2-15-7 mitsuyakita yodogawa-ku,Osaka-fu,Japan Name of section: R&D Phone number: :+81-(0)6-6308-1216 Emergency call: :+81-(0)6-6308-1216 Fax number: :+81-(0)6-6305-3018 E-MAIL: kenkyuu@turner.co.jp Revised Date / Issued Data: Mar.29.2018 Form No.: 1341-03

Colors: ■Permanent Lemon, Permanent Yellow, Permanent Yellow Deep, Permanent Yellow Orange, Permanent Orange, Permanent Scarlet, Permanent Red, Carmine, Rose, Poppy Red, Ultramarine, Red Violet, Blue Violet, Vermilion (Hue), Crimson, Currant Red, Magenta, Aubergine, Deep Purple, J. P. Gohun, J. Gohun, J. Red, J. Red Purple, J. Deep Red

## 2. HAZARDS IDENTIFICATION

| GHS Physical Hazards:                                    | Not applicable.                                       |
|--|---|
| GHS Health and Environmental Hazards:                    | Not applicable.                                       |
| hazard pictograms:<br>Signal word:<br>Hazard statements: | Not applicable.<br>Not applicable.<br>Not applicable. |

Precautionary statements: Other hazards: Not applicable. Not applicable.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture General product description: Acrylic emulsion paints

**GHS Classification** 

|                              |                  | CAS No. | Remarks |
|------------------------------|------------------|---------|---------|
| Ingredients and composition: | acrylic emulsion | -       |         |
|                              |                  |         |         |
|                              |                  |         |         |

|               | 4.FIRST - AID MEASURES   |
|---------------|--|
| Eye contact:  | Remove any contact lenses at once.   |
|               | Flush eyes well with flooding amounts of running water for at least 15minutes.       |
|               | assure adequate flushing be separating the eyelids with sterile fingers.             |
|               | If irritation oersists, consult a physician.   |
| Skin contact: | Remove all contaminated clothing   |
|               | Washthe affected area with plenty of water with mild soap                            |
|               | If irritation is continued, refer to medical attention.                              |
| Inhalation:   | Remove the victim from the contamination immediately to fresh air.                   |
|               | If breathing is weak, irregular or has stopped, open his airway, loosen his and belt |
|               | and adminisiter artificial respiration. And refer for medical attention.             |
| Ingestion:    | Do not induce vomiting and refer to medical attention.                               |
|               | never give anything to someone who is unconscious.                                   |

## 5. FIRE - FIGHTING MEASURES

Specific hazards regarding with fire fighting measure:

Apply water from a safe distance to cool and project surrounding area. Firefighters should wear proper protective equipment and self-breathing apparatus. Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand.

Hazardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.

#### 6. ACCIDENTAL RELEASE MEASURES

| Personal      | precautions: | Wear proper protective equipment.   |
|---------------|--------------|---|
|               |              | In case of insufficient ventilation, wear suitable respiratory equipment.       |
|               |              | Shut off all sources of ignition.   |
|               |              | Avoid contact with skin and eyes.   |
|               |              | Remove ignition sources and ventilate the area.                                 |
|               |              | Evacuate personnel to safe area.evacuate non-essential personnel.               |
| Environmental | precautions: | Do not wash away into sewer,watercourse or river.                               |
|               |              | Prevent spills from entaering a lot of outflow, watercourses or low areas.      |
|               |              | In oder to prevent a lot of outflow, it shoulds with the ground etc.            |
| Methods for   | cleaning up: | Take up spilled material with ashes or other absorbents.                        |
|               |              | After material is completely picked up, wash the spill site with soap and water |
|               |              | and ventilate the area.   |
|               |              | Put all wastes in a plastic bag for disposal and seal it tightly.               |
|               |              | Remove, clean, or dispose of contaminated clothing.                             |
|               |              |   |

|           | 7. HANDLING AND STORAGE  |
|-----------|--|
| Handling: | Keep away from sources of ignition No smoking. Avoid contact with eyes.        |
|           | Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray. |
|           | Use only in well-ventilated areas.When using do not eat or drink.              |
|           | Wash hands before breaks and immediately after handling the product.           |
| Storage:  | Keep out of the reach of children. Keep container in a well-ventilated place.  |
|           | Keep away from food, drink and animal feedingstuffs.                           |

| 8. EXP         | OSURE CONTROLS/PERSONAL PROTECTION |
|----------------|------------------------------------|
| Ingredient (s) | Exposure Limits (ACGIH-TLV)        |
| No inform      | nation available.                  |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits. Personal protective equipment: Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

| Physical State:   | Liquid.   |
|---|---|
| Colour:   | By color  |
| Odour:  | Slight  |
| ;Hq   | 8.0 - 9.0   |
| Boiling point / boiling range:  | 100°C (water)   |
| Melting point / melting range:  | No information available.   |
| Flash point:  | No information available.   |
| Flammability (solid, gas):  | No information available.   |
| Explosive properties:   | No information available.   |
| Oxidising properties:   | No information available.   |
| Vapour pressure:  | No information available.   |
|   |   |
| Relative density (of concentrate):  | 1.1 - 1.5   |
| Relative density (of concentrate):<br>Solutility (in water) (of concentrate):   |   |
|   | Complete.   |
| Solutility (in water) (of concentrate):   | Complete.<br>Impossible   |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):  | Complete.<br>Impossible<br>No information available.  |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):<br>Partition coefficient: n-octanol/water:<br>Viscosity (of concentrate):  | Complete.<br>Impossible<br>No information available.  |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):<br>Partition coefficient: n-octanol/water:<br>Viscosity (of concentrate):<br>Miscibility:  | Complete.<br>Impossible<br>No information available.<br>No information available.   |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):<br>Partition coefficient: n-octanol/water:<br>Viscosity (of concentrate):<br>Miscibility:<br>Vapor density:  | Complete.<br>Impossible<br>No information available.<br>No information available.<br>No information available.  |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):<br>Partition coefficient: n-octanol/water:<br>Viscosity (of concentrate):<br>Miscibility:<br>Vapor density:  | Complete.<br>Impossible<br>No information available.<br>No information available.<br>No information available.<br>No information available.<br>No information available.                              |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):<br>Partition coefficient: n-octanol/water:<br>Viscosity (of concentrate):<br>Miscibility:<br>Vapor density:<br>Evaporation rate:                               | Complete.<br>Impossible<br>No information available.<br>No information available.<br>No information available.<br>No information available.<br>No information available.                              |
| Solutility (in water) (of concentrate):<br>Solutility (in oil) (of concentrate):<br>Partition coefficient: n-octanol/water:<br>Viscosity (of concentrate):<br>Miscibility:<br>Vapor density:<br>Evaporation rate:<br>Auto-ignition temperature: | Complete.<br>Impossible<br>No information available.<br>No information available.<br>No information available.<br>No information available.<br>No information available.<br>No information available. |

#### 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

| Toxicity                           | No further relevant information available. |
|------------------------------------|--|
| Aquatic toxicity:                  | No further relevant information available. |
| Persistence and degradability:     | No further relevant information available. |
| Behavior in environmental systems: | No further relevant information available. |
| Bioaccumulative potential:         | No further relevant information available. |
| Mobility in soil:                  | No further relevant information available. |
| Additional ecological information: | No further relevant information available. |
|                                    |  |

#### 13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

■Air transport Not classified as a dangerous good under transport regulations.

∎UN No.

Not applicable It does not fall under the dangerous goods under the UN Recommendation.

15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

#### 16. OTHER INFORMATION

Disclaimer: Original colors / Japanesque colour series carry AP mark.

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION

Chemical product name: ACRYL GOUACHE③

Name of manufacturer: Turner Colour Works Ltd.

Japanesque colour series

Address: 2-15-7 mitsuyakita yodogawa-ku,Osaka-fu,Japan

Name of section: R&D

Phone number: :+81-(0)6-6308-1216

Emergency call: :+81-(0)6-6308-1216

Fax number: :+81-(0)6-6305-3018

E-MAIL: kenkyuu@turner.co.jp

Revised Date∕Issued Data: Mar.29.2018

Form No. : 1342-03

Colors: ■J. White, J. Grey, J. Blue Grey, J. Blue Black, J. Red Black, J. Dark Grey, J. Pale Yellow, J. Enamel, J. Deep Yellow, J. Strong Orange, J. Scarlet, J. Yellow Red, J. Pale Pink, J. Deep Pink, J. Red Brown, J. Strawberry Red, J. Grayish Red, J. Grayish Beige, J. Ivory Yellow, J. Beige, J. Deep Beige, J. Yellow Brown, J. Brown, J. Greyish Brown, J. Burnt Umber, J. Dark Brown, J. Red Brown, J. Pale Green, J. Light Green, J. Yellow Green, J. Green Light, J. Olive Green, J. Deep Green, J. Dark Green, J. Black Green, J. Dark Yellow, J. Pale Blue, J. Light Blue, J. Blue, J. Dark Blue, J. Deep Blue, J. Prussian Blue, J. Black Blue, J. Sky Blue, J. Pale Lilac, J. Lilac, J. Violet, J. Deep Purple, J. Black Purple, J. Grayish Purple, J. Iridfscence-2, J. Iridfscence-3, J. Iridfscence-4

2. HAZARDS IDENTIFICATION

GHS Classification

GHS Physical Hazards:Not applicable.GHS Health and Environmental Hazards:Not applicable.hazard pictograms:Not applicable.Signal word:Not applicable.Hazard statements:Not applicable.

Precautionary statements: Other hazards: Not applicable. Not applicable.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture General product description: Acrylic emulsion paints

|                              |                             | CAS No.    | Remarks |
|------------------------------|-----------------------------|------------|---------|
| Ingredients and composition: | acrylic emulsion            | -          |         |
|                              | carbon black                | 1333-86-4  |         |
|                              | tin(IV) oxide               | 18282-10-5 |         |
|                              | silicon oxide               | 7631-86-9  |         |
|                              | C.I.Pigment Blue 15         | 147-14-8   |         |
|                              | C.I.Pigment Green 7         | 1328-53-6  |         |
|                              | titanium dioxide            | 13463-67-7 |         |
|                              | ferric oxide                | 1309-37-1  |         |
|                              | iron hydroxide oxide yellow | 51274-00-1 |         |
|                              |                             |            |         |

| 4. FIRST – AID MEASURES   |
|---|
| Eye contact: Remove any contact lenses at once.                                   |
| Flush eyes well with flooding amounts of running water for at least 15minutes.    |
| assure adequate flushing be separating the eyelids with sterile fingers.          |
| If irritation oersists, consult a physician.                                      |
| Skin contact: Remove all contaminated clothing                                    |
| Washthe affected area with plenty of water with mild soap                         |
| If irritation is continued, refer to medical attention.                           |
| Inhalation: Remove the victim from the contamination immediately to fresh air.    |
| If breathing is weak,irregular or has stopped,open his airway,loosen his and belt |
| and adminisiter artificial respiration. And refer for medical attention.          |
| Ingestion: Do not induce vomiting and refer to medical attention.                 |
| never give anything to someone who is unconscious.                                |

| 5. FIRE - FIGHTING MEASURES   |
|---|
| Specific hazards regarding with fire fighting measure:                                    |
| Apply water from a safe distance to cool and project surrounding area.                    |
| Firefighters should wear proper protective equipment and self-breathing apparatus.        |
| Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand. |
| Hazardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.        |

|                            | 6. ACCIDENTAL RELEASE MEASURES  |
|----------------------------|---|
| Personal precautions:      | Wear proper protective equipment.   |
|                            | In case of insufficient ventilation, wear suitable respiratory equipment.       |
|                            | Shut off all sources of ignition.   |
|                            | Avoid contact with skin and eyes.   |
|                            | Remove ignition sources and ventilate the area.                                 |
|                            | Evacuate personnel to safe area evacuate non-essential personnel.               |
| Environmental precautions: | Do not wash away into sewer,watercourse or river.                               |
|                            | Prevent spills from entaering a lot of outflow, watercourses or low areas.      |
|                            | In oder to prevent a lot of outflow, it shoulds with the ground etc.            |
| Methods for cleaning up:   | Take up spilled material with ashes or other absorbents.                        |
|                            | After material is completely picked up, wash the spill site with soap and water |
|                            | and ventilate the area.   |
|                            | Put all wastes in a plastic bag for disposal and seal it tightly.               |
|                            | Remove, clean, or dispose of contaminated clothing.                             |

|           | 7. HANDLING AND STORAGE  |
|-----------|--|
| Handling: | Keep away from sources of ignition No smoking. Avoid contact with eyes.        |
|           | Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray. |
|           | Use only in well-ventilated areas.When using do not eat or drink.              |
|           | Wash hands before breaks and immediately after handling the product.           |
| Storage:  | Keep out of the reach of children. Keep container in a well-ventilated place.  |
| I         | Keep away from food,drink and animal feedingstuffs.                            |

| Ingredient (s)              | Exposure Limits (ACGIH-TLV) |
|-----------------------------|-----------------------------|
| carbon black                | 3.5mg/m3                    |
| tin(IV) oxide               | 2. Omg/m3(TWA)(Sn)          |
| silicon oxide               | 10mg/m3 (TWA)               |
| C.I.Pigment Blue 15         | -                           |
| C.I.Pigment Green 7         | -                           |
| titanium dioxide            | 10mg/m3                     |
| ferric oxide                | 5mg/m3(Fe)                  |
| iron hydroxide oxide yellow | 5mg/m3(Fe)                  |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits. Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

|  | PHYSICAL AND CHEMICAL PROPERTIES       |
|--|--|
| Physical State                         | •                                      |
|  | : By color                             |
| 0dour                                  | : Slight                               |
| Hq                                     | ÷ 8.0 – 9.0                            |
| Boiling point / boiling range:         | 100°C (water)                          |
| Melting point / melting range          | : No information available.            |
| Flash point                            | : No information available.            |
| Flammability (solid, gas)              | :No information available.             |
| Explosive properties                   | :No information available.             |
| Oxidising properties                   | $\therefore$ No information available. |
| Vapour pressure                        | $\therefore$ No information available. |
| Relative density (of concentrate)      | : 1.0 - 1.3                            |
| Solutility (in water) (of concentrate) | : Complete.                            |
| Solutility (in oil) (of concentrate)   | : Impossible                           |
| Partition coefficient: n-octanol/water | : No information available.            |
| Viscosity (of concentrate)             | $\therefore$ No information available. |
| Miscibility                            | :No information available.             |
| Vapor density                          | :No information available.             |
| Evaporation rate                       | :No information available.             |
| Auto-ignition temperature              | :No information available.             |
| Lower Flammability Limit               | $\therefore$ No information available. |
| Upper Flammability Limit               | $\therefore$ No information available. |

## 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

| ■carbon black                              |
|--|
| Acute toxicity-ORAL: LD50:>15400mg/kg(rat) |
| ■tin(IV) oxide                             |
| Acutetoxicity-ORAL: LD50:>20g/kg(rat)      |
| ■silicon oxide                             |
| No information available.                  |
| ■C.I.Pigment Blue 15                       |
| Acute toxicity-ORAL: LD50:>2000mg/kg(rat)  |
| ■C.I.Pigment Green 7                       |
| Acute toxicity-ORAL: LD50:≧5000mg/kg(rat)  |
| ∎titanium dioxide                          |
| Acute toxicity-ORAL: LD50:>10000mg/kg(rat) |
| ■ferric oxide                              |
| No information available.                  |
| ■iron hydroxide oxide yellow               |
| No information available.                  |

#### 12. ECOLOGICAL INFORMATION

| Toxicity                           | No | further | relevant | information | available. |
|------------------------------------|----|---------|----------|-------------|------------|
| Aquatic toxicity:                  | No | further | relevant | information | available. |
| Persistence and degradability:     | No | further | relevant | information | available. |
| Behavior in environmental systems: | No | further | relevant | information | available. |
| Bioaccumulative potential:         | No | further | relevant | information | available. |
| Mobility in soil:                  | No | further | relevant | information | available. |
| Additional ecological information: | No | further | relevant | information | available. |

## 13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■ Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

## ∎Air transport

Not classified as a dangerous good under transport regulations.

## ∎UN No.

Not applicable It does not fall under the dangerous goods under the UN Recommendation.

## 15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

Disclaimer: Japanesque colour series carry AP mark .

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION Chemical product name: ACRYL GOUACHE④ Original colors / Pearl / Japanesque colour Name of manufacturer: Turner Colour Works Ltd. Address: 2-15-7 mitsuyakita yodogawa-ku,Osaka-fu,Japan Name of section: R&D Phone number: :+81-(0)6-6308-1216 Emergency call: :+81-(0)6-6308-1216 Fax number: :+81-(0)6-6305-3018 E-MAIL: kenkyuu@turner.co.jp Revised Date / Issued Data: Mar. 29. 2018 Form No. : 1343-03 Colors: ■Burnt Sienna, Sepia, Raw Umber, Burnt Umber, Chocolate, Permanent Green Middle, Violet, Pearl White, Pearl Red, Pearl Lilac, Pearl Blue, Pearl Green, Pearl Yellow, J. Grayish Green

## 2. HAZARDS IDENTIFICATION

GHS Classification

GHS

| GHS Physical Hazards                 | Not applicable.                                     |
|--------------------------------------|---|
| GHS Health and Environmental Hazards |   |
| Hazardous to the aquatic environ     | nent (acute) : category 3                           |
| Hazardous to the aquatic environment | nt (chronic) : category 3                           |
| hazard pictograms:<br>Signal word:   | No<br>No signal word                                |
| Signal Word.                         | No Signal wolu                                      |
| Hazard statements:                   |   |
| H40                                  | 2 Harmful to aquatic life                           |
| H41                                  | 2 Harmful to aquatic life with long lasting effects |
|                                      |   |
| ecautionary statements:              |   |

Precautionary statements:

P273 Avoid release to the environment.

Other hazards:

 $\mathsf{P501}\ \mathsf{D}\mathsf{ispose}$  of contents/container in accordnce with local/regional/national/international regulations.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture General product description: Acrylic emulsion paints

|   | CAS No.    | Remarks |
|---|------------|---------|
| Ingredients and composition: acrylic emulsion | -          |         |
| carbon black                                  | 1333-86-4  |         |
| tin(IV) oxide                                 | 18282-10-5 |         |
| C.I.Pigment Blue 15                           | 147-14-8   |         |
| C.I.Pigment Green 7                           | 1328-53-6  |         |
| titanium dioxide                              | 13463-67-7 |         |
| ferric oxide                                  | 1309-37-1  |         |
|   |            |         |
|   |            |         |
|   |            |         |

| 4. FIRST - AID MEASURES   |
|---|
| Eye contact: Remove any contact lenses at once.                                     |
| Flush eyes well with flooding amounts of running water for at least 15minutes.      |
| assure adequate flushing be separating the eyelids with sterile fingers.            |
| If irritation oersists, consult a physician.  |
| Skin contact: Remove all contaminated clothing                                      |
| Washthe affected area with plenty of water with mild soap                           |
| If irritation is continued, refer to medical attention.                             |
| Inhalation: Remove the victim from the contamination immediately to fresh air.      |
| If breathing is weak, irregular or has stopped,open his airway, loosen his and belt |
| and adminisiter artificial respiration. And refer for medical attention.            |
| Ingestion: Do not induce vomiting and refer to medical attention.                   |
| never give anything to someone who is unconscious.                                  |

| 5. FIRE - FIGHTING MEASURES  |
|--|
| Specific hazards regarding with fire fighting measure:                                   |
| Apply water from a safe distance to cool and project surrounding area.                   |
| Firefighters should wear proper protective equipment and self-breathing apparatus.       |
| Suitable extinguishing media:Water/Dry chemical powder/Carbon dioxide/Foam and dry sand. |
| Hazardous combustion products: Carbon monoxide,smoke,fumes and oxides of carbon.         |

| 6. ACCIDENTAL RELEASE MEASURES |  |  |  |
|--------------------------------|--|--|--|
| Personal precautions:          | Wear proper protective equipment.<br>In case of insufficient ventilation, wear suitable respiratory equipment.<br>Shut off all sources of ignition.<br>Avoid contact with skin and eyes.<br>Remove ignition sources and ventilate the area.<br>Evacuate personnel to safe area.evacuate non-essential personnel. |  |  |
| Environmental precautions:     | Do not wash away into sewer,watercourse or river.<br>Prevent spills from entaering a lot of outflow,watercourses or low areas.<br>In oder to prevent a lot of outflow,it shoulds with the ground etc.  |  |  |
| Methods for cleaning up:       | Take up spilled material with ashes or other absorbents.<br>After material is completely picked up, wash the spill site with soap and water<br>and ventilate the area.<br>Put all wastes in a plastic bag for disposal and seal it tightly.<br>Remove, clean, or dispose of contaminated clothing.               |  |  |

|           | 7. HANDLING AND STORAGE  |
|-----------|--|
| Handling: | Keep away from sources of ignition No smoking. Avoid contact with eyes.        |
|           | Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray. |
|           | Use only in well-ventilated areas.When using do not eat or drink.              |
|           | Wash hands before breaks and immediately after handling the product.           |
| Storage:  | Keep out of the reach of children. Keep container in a well-ventilated place.  |
|           | Keep away from food,drink and animal feedingstuffs.                            |

| Ingredient (s)      | Exposure Limits (ACGIH-TLV) |
|---------------------|-----------------------------|
| carbon black        | 3.5mg/m3                    |
| tin(IV) oxide       | 2.Omg/m3(TWA), as Sn        |
| C.I.Pigment Blue 15 | -                           |
| C.I.Pigment Green 7 | _                           |
| titanium dioxide    | 10mg/m3                     |
| ferric oxide        | 5mg/m3, as Fe               |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits. Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

|   | 9. PHYSICAL AND CHEMICAL PROPERTIES                               |
|---|---|
|   | Physical State: Liquid.   |
|   | Colour: By color  |
|   | Odour: Slight   |
|   | pH: 8.0 - 9.0   |
|   | Boiling point / boiling range: 100°C (water)                      |
|   | Melting point / melting range: No information available.          |
|   | Flash point: No information available.                            |
|   | Flammability (solid, gas): No information available.              |
|   | Explosive properties: No information available.                   |
|   | Oxidising properties: No information available.                   |
|   | Vapour pressure: No information available.                        |
|   | Relative density (of concentrate): 1.0 - 1.5                      |
| S | Solutility (in water) (of concentrate): Complete.                 |
|   | Solutility (in oil) (of concentrate): Impossible                  |
| F | Partition coefficient: n-octanol/water: No information available. |
|   | Viscosity (of concentrate): No information available.             |
|   | Miscibility: No information available.                            |
|   | Vapor density: No information available.                          |
|   | Evaporation rate: No information available.                       |
|   | Auto-ignition temperature: No information available.              |
|   | Lower Flammability Limit: No information available.               |
|   | Upper Flammability Limit: No information available.               |

## 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

## 11. TOXICOLOGICAL INFORMATION

| ■carbon black                              |
|--|
| Acute toxicity-ORAL: LD50:>15400mg/kg(rat) |
| ■tin(IV) oxide                             |
| Acute toxicity-ORAL: LD50:>20g/kg(rat)     |
| ■C.I.Pigment Blue 15                       |
| Acute toxicity-ORAL: LD50:>2000mg/kg(rat)  |
| ■C.I.Pigment Green 7                       |
| Acute toxicity-ORAL: LD50:≧5000mg/kg(rat)  |
| ∎titanium dioxide                          |
| Acute toxicity-ORAL: LD50:>10000mg/kg(rat) |
| ■ferric oxide                              |
| No information available.                  |

#### 12. ECOLOGICAL INFORMATION

| Toxicity:                          | No further relevant information available. |
|------------------------------------|--|
| Aquatic toxicity:                  | No further relevant information available. |
| Persistence and degradability:     | No further relevant information available. |
| Behavior in environmental systems: | No further relevant information available. |
| Bioaccumulative potential:         | No further relevant information available. |
| Mobility in soil:                  | No further relevant information available. |
| Additional ecological information: | No further relevant information available. |

#### 13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■ Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

■Air transport Not classified as a dangerous good under transport regulations.

■UN No. Not applicable It does not fall under the dangerous goods under the UN Recommendation.

#### 15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

#### 16. OTHER INFORMATION

Disclaimer: Original colors / Pearl / Japanesque colour carry AP mark . The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION

Chemical product name: ACRYL GOUACHE⑤ Luminous / Gravish / Pastel / Lame Color series / Color Pearl Name of manufacturer: Turner Colour Works Ltd. Address: 2-15-7 mitsuyakita yodogawa-ku,Osaka-fu,Japan Name of section: R&D Phone number: :+81-(0)6-6308-1216 Emergency call: :+81-(0)6-6308-1216 Fax number: :+81-(0)6-6305-3018 E-MAIL: kenkyuu@turner.co.jp Revised Date / Issued Data: Mar. 29. 2018 Form No. : 1344-03 Colors: ■Pastel Enamel, Pastel Peach, Pastel Pink, Pastel Sand, Pastel Lime, Pastel Emerald, Pastel Blue, Pastel Lavender, Pastel Lilac, Pastel Lemon, Pastel Orange, Pastel Rose, Pastel Green, Pastel Olive, Pastel Marine, Grayish Red, Grayish Beige, Grayish Brown, Grayish Green, Grayish Blue, Grayish Purple, Lumi. White, Lumi. Lemon, Lumi. Orange, Lumi. Red, Lumi. Blue, Lumi. Green, Lumi. Rose, Lame. Clear Opal, Lame. Clear Diamond, Lame. Yellow Opal, Lame. Green Emerald, Lame. Pink Coral, Lame. Blue Diamond, Lame. Purple Peridot, Lame Lime Emerald, Lame. Orange Crystal, Lame. Marine Sapphire, Lame. Black Diamond, Lame. Gold, Lame. Silver, Colour Pearl White, Colour Pearl Lemon, Colour Pearl Yellow, Colour Pearl Pink, Colour Pearl Orange, Colour Pearl Red, Colour Pearl Magenta, Colour Pearl Lime, Colour Pearl Emerald, Colour Pearl Green, Colour Pearl Mint, Colour Pearl Aqua, Colour Pearl Turquoise, Colour Pearl Marine,

Colour Pearl Indigo, Colour Pearl Lilac, Colour Pearl Violet, Colour Pearl Blackmixing

## 2. HAZARDS IDENTIFICATION

#### GHS Classification

| Precautionary statements:             | Not applicable. |
|---------------------------------------|-----------------|
| Other hazards:                        | Not applicable. |
| hazard pictograms:                    | Not applicable. |
| Signal word:                          | Not applicable. |
| Hazard statements:                    | Not applicable. |
| GHS Health and Environmental Hazards: | Not applicable. |
| GHS Physical Hazards:                 | Not applicable. |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

General product description: Acrylic emulsion paints

Substance/Mixture: Mixture

|                              |                             | CAS No.    | Remarks |
|------------------------------|-----------------------------|------------|---------|
| Ingredients and composition: | acrylic emulsion            | —          |         |
|                              | carbon black                | 1333-86-4  |         |
|                              | C.I.Pigment Blue 15         | 147-14-8   |         |
|                              | C.I.Pigment Green 7         | 1328-53-6  |         |
|                              | titanium dioxide            | 13463-67-7 |         |
|                              | ferric oxide                | 1309-37-1  |         |
|                              | iron hydroxide oxide yellow | 51274-00-1 |         |

|              | 4.FIRST - AID MEASURES   |
|--------------|--|
| Eye contact  | Remove any contact lenses at once.   |
|              | Flush eyes well with flooding amounts of running water for at least 15minutes.       |
|              | assure adequate flushing be separating the eyelids with sterile fingers.             |
|              | If irritation oersists, consult a physician.   |
| Skin contact | Remove all contaminated clothing   |
|              | Washthe affected area with plenty of water with mild soap                            |
|              | If irritation is continued, refer to medical attention.                              |
| Inhalation   | Remove the victim from the contamination immediately to fresh air.                   |
|              | If breathing is weak, irregular or has stopped, open his airway, loosen his and belt |
|              | and adminisiter artificial respiration. And refer for medical attention.             |
| Ingestion    | Do not induce vomiting and refer to medical attention.                               |
|              | never give anything to someone who is unconscious.                                   |

## 5. FIRE - FIGHTING MEASURES

Specific hazards regarding with fire fighting measure:

Apply water from a safe distance to cool and project surrounding area. Firefighters should wear proper protective equipment and self-breathing apparatus. Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand.

Hazardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.

|                      | 6. ACCIDENTAL RELEASE MEASURES  |
|----------------------|---|
| Personal precau      | tions: Wear proper protective equipment.  |
|                      | In case of insufficient ventilation, wear suitable respiratory equipment.       |
|                      | Shut off all sources of ignition.   |
|                      | Avoid contact with skin and eyes.   |
|                      | Remove ignition sources and ventilate the area.                                 |
|                      | Evacuate personnel to safe area.evacuate non-essential personnel.               |
| Environmental precau | tions: Do not wash away into sewer,watercourse or river.                        |
|                      | Prevent spills from entaering a lot of outflow,watercourses or low areas.       |
|                      | In oder to prevent a lot of outflow, it shoulds with the ground etc.            |
| Methods for cleani   | ng up: Take up spilled material with ashes or other absorbents.                 |
|                      | After material is completely picked up, wash the spill site with soap and water |
|                      | and ventilate the area.   |
|                      | Put all wastes in a plastic bag for disposal and seal it tightly.               |
|                      | Remove, clean, or dispose of contaminated clothing.                             |

|           | 7. HANDLING AND STORAGE  |
|-----------|--|
| Handling: | Keep away from sources of ignition No smoking. Avoid contact with eyes.        |
|           | Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray. |
|           | Use only in well-ventilated areas.When using do not eat or drink.              |
|           | Wash hands before breaks and immediately after handling the product.           |
| Storage:  | Keep out of the reach of children. Keep container in a well-ventilated place.  |
|           | Keep away from food,drink and animal feedingstuffs.                            |

| Ingredient (s)              | Exposure Limits (ACGIH-TLV) |  |
|-----------------------------|-----------------------------|--|
| carbon black                | 3.5mg/m3                    |  |
| C.I.Pigment Blue 15         | -                           |  |
| C.I.Pigment Green 7         | -                           |  |
| titanium dioxide            | 10mg/m3                     |  |
| ferric oxide                | 5mg/m3,as Fe                |  |
| iron hydroxide oxide yellow | 5mg/m3,as Fe                |  |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits. Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Hand protection: Wear suitable gloves. Eye protection: Wear safety glasses with side shields. Skin protection: Wear suitable protective clothing. Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

|                                  | 9. PHYSICAL AND CHEMICAL PROPERTIES |
|----------------------------------|-------------------------------------|
| -                                | State: Liquid.                      |
|                                  | Colour: By color                    |
|                                  | Odour: Slight                       |
|                                  | pH: 8.0 – 9.0                       |
| Boiling point / boiling r        | ange: 100°C (water)                 |
| Melting point / melting          | ; range: No information available.  |
| Flash                            | n point: No information available.  |
| Flammability (solid              | l, gas): No information available.  |
| Explosive prop                   | perties: No information available.  |
| Oxidising prop                   | perties: No information available.  |
| Vapour pr                        | essure: No information available.   |
| Relative density (of concen      | itrate): 1.0 - 1.5                  |
| Solutility (in water) (of concen | itrate): Complete.                  |
| Solutility (in oil) (of concen   | ıtrate): Impossible                 |
| Partition coefficient: n-octanol | /water: No information available.   |
| Viscosity (of concen             | ntrate): No information available.  |
| Misci                            | bility: No information available.   |
| Vapor d                          | lensity: No information available.  |
| Evaporatio                       | on rate: No information available.  |
| Auto-ignition tempe              | erature: No information available.  |
| Lower Flammability               | /Limit: No information available.   |
| Upper Flammability               | /Limit: No information available.   |

10.STABILITY AND REACTIVITY Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

#### 11. TOXICOLOGICAL INFORMATION

| ■carbon black                                    |
|--|
| Acute toxicity-ORAL: LD50:>15400mg/kg(rat)       |
| ■C.I.Pigment Blue 15                             |
| Acute toxicity-ORAL: LD50:>2000mg/kg(rat)        |
| ■C.I.Pigment Green 7                             |
| Acute toxicity-ORAL: LD50: $\geq$ 5000mg/kg(rat) |
| ∎titanium dioxide                                |
| Acute toxicity-ORAL: LD50:>10000mg/kg(rat)       |
| ■ferric oxide                                    |
| No information available.                        |
| ■iron hydroxide oxide yellow                     |
| No information available.                        |

#### 12. ECOLOGICAL INFORMATION

| Toxicity                           | No further relevant information available. |
|------------------------------------|--|
| Aquatic toxicity:                  | No further relevant information available. |
| Persistence and degradability:     | No further relevant information available. |
| Behavior in environmental systems: | No further relevant information available. |
| Bioaccumulative potential:         | No further relevant information available. |
| Mobility in soil:                  | No further relevant information available. |
| Additional ecological information: | No further relevant information available. |

13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

■Air transport Not classified as a dangerous good under transport regulations.

■UN No. Not applicable It does not fall under the dangerous goods under the UN Recommendation.

15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

#### 16. OTHER INFORMATION

Disclaimer: Luminous / Grayish / Pastel / Lame Color series / Color Pearl carry AP mark . The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION Chemical product name: ACRYL GOUACHE⑥ Metallic / Japanesque Metallic Name of manufacturer: Turner Colour Works Ltd. Address: 2-15-7 mitsuyakita yodogawa-ku, Osaka-fu, Japan Name of section: R&D Phone number: :+81-(0) 6-6308-1216 Emergency call: :+81-(0) 6-6308-1216 Fax number: :+81-(0) 6-6305-3018 E-MAIL: kenkyuu@turner.co.jp Revised Date / Issued Data: Mar.29.2018 Form No.: 1339-03 Colors: ■Gold Light, Gold Deep, Silver, Gold Orange, Bronze, Copper, Antique Gold, Antique Bronze, Antique Silver, J. Blue Gold, J. Red Gold, J. Green Gold, J. Black Gold, J. Blue Bronze, J. Copper,

J. Red Bronze, J. Silver, J. Black Silver

2. HAZARDS IDENTIFICATION

GHS Classification

| GHS Physical Haz   | zards:                          | Not applicable.                        |
|--|---------------------------------|--|
| GHS Health and Environmental Haz<br>Hazardous to the aquatic env |                                 | category 3                             |
| Hazardous to the aquatic envir                                   |                                 |  |
| hazard pictograms:<br>Signal word:                               | No<br>nictogram<br>No signal wo | ord                                    |
| Hazard statements:   |                                 |  |
|  | H4O2 Harmful to a               | aquatic life                           |
|  | H412 Harmful to a               | equatic life with long lasting effects |
|  |                                 |  |
| Precautionary statements:  | P273 Avoid releas               | se to the environment.                 |

Other hazards:

P501 Dispose of contents/container in accordnce with

local/regional/national/international regulations.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Substance/Mixture: Mixture

General product description: Acrylic emulsion paints

|   | CAS No.    | Remarks  |
|---|------------|----------|
| Ingredients and composition: acrylic emulsion | -          |          |
| carbon black                                  | 1333-86-4  |          |
| chromium(iii) oxide                           | 1308-38-9  | PRTR Law |
| chromium and its compounds                    |            |          |
| tin(IV) oxide                                 | 18282-10-5 |          |
| titanium dioxide                              | 13463-67-7 |          |
| ferric oxide                                  | 1309-37-1  |          |
| iron hydroxide oxide yellow                   | 51274-00-1 |          |
|   |            |          |

| Composition Ingredient(%) | colors         | chromium(iii) oxide |  |
|---------------------------|----------------|---------------------|--|
|                           |                | as Cr               |  |
|                           | GOLD LIGHT     | -1%                 |  |
|                           | GOLD DEEP      | -1%                 |  |
|                           | GOLD ORANGE    | -1%                 |  |
|                           | J. BLUE GOLD   | -1%                 |  |
|                           | J. RED GOLD    | -1%                 |  |
|                           | J. BLUE BRONZE | -1%                 |  |
|                           | J. COPPER      | -1%                 |  |
|                           | J. SILVER      | -1%                 |  |

| 4. FIRST - AID MEASURES  |
|--|
| Eye contact: Remove any contact lenses at once.                                      |
| Flush eyes well with flooding amounts of running water for at least 15minutes.       |
| assure adequate flushing be separating the eyelids with sterile fingers.             |
| If irritation oersists, consult a physician.   |
| Skin contact: Remove all contaminated clothing                                       |
| Washthe affected area with plenty of water with mild soap                            |
| If irritation is continued, refer to medical attention.                              |
| Inhalation: Remove the victim from the contamination immediately to fresh air.       |
| If breathing is weak, irregular or has stopped, open his airway, loosen his and belt |
| and adminisiter artificial respiration. And refer for medical attention.             |
| Ingestion: Do not induce vomiting and refer to medical attention.                    |
| never give anything to someone who is unconscious.                                   |

| 5. FIRE - FIGHTING MEASURES   |  |  |
|---|--|--|
| Specific hazards regarding with fire fighting measure:                                    |  |  |
| Apply water from a safe distance to cool and project surrounding area.                    |  |  |
| Firefighters should wear proper protective equipment and self-breathing apparatus.        |  |  |
| Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand. |  |  |
| Hazardous combustion products: Carbon monoxide,smoke,fumes and oxides of carbon.          |  |  |
|   |  |  |

| 6. ACCIDENTAL RELEASE MEASURES  |
|---|
| Personal precautions: Wear proper protective equipment.                           |
| In case of insufficient ventilation, wear suitable respiratory equipment.         |
| Shut off all sources of ignition.   |
| Avoid contact with skin and eyes.   |
| Remove ignition sources and ventilate the area.                                   |
| Evacuate personnel to safe area.evacuate non-essential personnel.                 |
| Environmental precautions: Do not wash away into sewer,watercourse or river.      |
| Prevent spills from entaering a lot of outflow, watercourses or low areas.        |
| In oder to prevent a lot of outflow, it shoulds with the ground etc.              |
| Methods for cleaning up: Take up spilled material with ashes or other absorbents. |
| After material is completely picked up, wash the spill site with soap and water   |
| and ventilate the area.   |
| Put all wastes in a plastic bag for disposal and seal it tightly.                 |
| Remove, clean, or dispose of contaminated clothing.                               |
|   |

#### 7. HANDLING AND STORAGE

Handling: Keep away from sources of ignition. - No smoking. Avoid contact with eyes. Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray. Use only in well-ventilated areas. When using do not eat or drink. Wash hands before breaks and immediately after handling the product. Storage: Keep out of the reach of children. Keep container in a well-ventilated place. Keep away from food, drink and animal feedingstuffs.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Ingredient (s)              | Exposure Limits (ACGIH-TLV) |
|-----------------------------|-----------------------------|
| carbon black                | 3.5mg/m3                    |
| chromium(iii) oxide         | 0.5mg/m3, as Cr             |
| tin(IV) oxide               | 2.Omg/m3(TWA),as Sn         |
| titanium dioxide            | 10mg/m3                     |
| ferric oxide                | 5mg/m3, as Fe               |
| iron hydroxide oxide yellow | 5mg/m3, as Fe               |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits. Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

| 9.                                      | PHYSICAL AND CHEMICAL PROPERTIES |
|---|----------------------------------|
| Physical State:                         | Liquid.                          |
| Colour:                                 | By color                         |
| Odour:                                  | Slight                           |
| :Hq                                     | 8.0 – 9.0                        |
| Boiling point / boiling range:          | 100°C (water)                    |
| Melting point / melting range:          | No information available.        |
| Flash point:                            | No information available.        |
| Flammability (solid, gas):              | No information available.        |
| Explosive properties:                   | No information available.        |
| Oxidising properties:                   | No information available.        |
| Vapour pressure:                        | No information available.        |
| Relative density (of concentrate):      | 1.1 – 1.3                        |
| Solutility (in water) (of concentrate): | Complete.                        |
| Solutility (in oil) (of concentrate):   | Impossible                       |
| Partition coefficient: n-octanol/water: | No information available.        |
| Viscosity (of concentrate):             | No information available.        |
| Miscibility:                            | No information available.        |
| Vapor density:                          | No information available.        |
| Evaporation rate:                       | No information available.        |
| Auto-ignition temperature:              | No information available.        |
| Lower Flammability Limit:               | No information available.        |
| Upper Flammability Limit:               | No information available.        |

10.STABILITY AND REACTIVITY Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

11. TOXICOLOGICAL INFORMATION

■iron hydroxide oxide yellow

No information available.

#### 12. ECOLOGICAL INFORMATION

| Toxicity:                          | No further relevant information available. |
|------------------------------------|--|
| Aquatic toxicity:                  | No further relevant information available. |
| Persistence and degradability:     | No further relevant information available. |
| Behavior in environmental systems: | No further relevant information available. |
| Bioaccumulative potential:         | No further relevant information available. |
| Mobility in soil:                  | No further relevant information available. |
| Additional ecological information: | No further relevant information available. |

#### 13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

■Air transport Not classified as a dangerous good under transport regulations.

■UN No. Not applicable It does not fall under the dangerous goods under the UN Recommendation.

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## 15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

## 16. OTHER INFORMATION

Disclaimer: Metallic / Japanesque Metallic carry AP mark .

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

1. CHEMICAL PRODUCT AND IDENTIFICATION Chemical product name: ACRYL GOUACHE Jet Black Name of manufacturer: Turner Colour Works Ltd. Address: 2-15-7, Mitsuyakita, Osaka Shi Yodogawa Ku, Osaka Fu, 532-0032, Japan Name of section: R&D Phone number: :+81-(0).6-6308-1216 Emergency call: :+81-(0).6-6308-1216 Fax number: :+81-(0).6-6305-3018 E-MAIL: kenkyuu@turner.co.jp Revised Date / Issued Data: Apr. 09. 2019 Form No.: 1338-04 2. HAZARDS IDENTIFICATION GHS Classification

Health Hazard : Reproductive toxicity: category 2 Environmental Hazards: Not applicable. hazard pictograms: silhouette Signal word: Warning Hazard statements: H361 Suspected of damaging fertility or the unborn child. Precautionary statements: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P280f Wear protective gloves/protective clothing/eye protection/face protection. P308+P313 IF exposed or concerned: Get medical advice/attention. Other hazards: P405 Store locked up.

P501 Dispose of contents/container in accordnce with local/regional/national/international regulations.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture General product description: Acrylic emulsion paints

|                              |   | (%)    | CAS No.    | Remarks  |
|------------------------------|---|--------|------------|----------|
| Ingredients and composition: | acrylic emulsion                            | 22%    | —          |          |
|                              | Aniline Black                               | 27%    | 13007-86-8 |          |
|                              | included [chromium(iii) oxide]              |        | 1308-38-9  | PRTR Law |
|                              | included [water-soluble copper salts]       |        |            | PRTR Law |
|                              | Thickener                                   | 3.58%  | secret     |          |
|                              | 1, 2-Propanediol                            | 1.42%  | 57-55-6    |          |
|                              | 3-Hydroxy-2,2,4-trimethylpentyl Isobutyrate | 1.16%  | 25265-77-4 |          |
|                              | olyethyleneglycol octylphenyl ether         | 0.51%  | 9036-19-5  |          |
|                              | 2-Amino-2-methyl-1-propanol                 | 0. 47% | 124-68-5   |          |
|                              | Hydroxyethyl Cellulose                      | 0.37%  | 9004-62-0  |          |
|                              | Antifoaming Agent                           | 0.31%  | secret     |          |
|                              | Sodium alkyl naphthalene sulfonate          | 0. 27% | secret     |          |
|                              | 2, 4, 7, 9-Tetramethy1-5-decyne-4, 7-dio1   | 0.21%  | 126-86-3   |          |
|                              | Phthalocyanine                              | 0.11%  | secret     |          |
|                              | 2-Butylbenzo[d]isothiazol-3(2H)-one         | 0.10%  | 4299-07-4  |          |
|                              | 1, 2-Benzisothiazol-3(2H)-one               | 0.09%  | 2634-33-5  |          |
|                              | Dispersible polymer                         | 0.07%  | secret     |          |
|                              | Polyether                                   | 0. 03% | secret     |          |
|                              | 2-Chloroacetamide                           | 0. 02% | 79-07-2    |          |
|                              | Water                                       | 42.55% | 7732-18-5  |          |
|                              | TOTAL                                       | 100%   |            |          |

|               | 4. FIRST - AID MEASURES  |
|---------------|--|
| Eye contact:  | Remove any contact lenses at once.   |
|               | Flush eyes well with flooding amounts of running water for at least 15minutes.       |
|               | assure adequate flushing be separating the eyelids with sterile fingers.             |
|               | If irritation oersists, consult a physician.   |
| Skin contact: | Remove all contaminated clothing   |
|               | Washthe affected area with plenty of water with mild soap                            |
|               | If irritation is continued, refer to medical attention.                              |
| Inhalation:   | Remove the victim from the contamination immediately to fresh air.                   |
|               | If breathing is weak, irregular or has stopped, open his airway, loosen his and belt |
|               | and adminisiter artificial respiration. And refer for medical attention.             |
| Ingestion:    | Do not induce vomiting and refer to medical attention.                               |
|               | never give anything to someone who is unconscious.                                   |

5.FIRE - FIGHTING MEASURES

Specific hazards regarding with fire fighting measure:

Apply water from a safe distance to cool and project surrounding area.

Firefighters should wear proper protective equipment and self-breathing apparatus.

Suitable extinguishing Water/Dry chemical powder/Carbon dioxide/Foam and dry sand.

zardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.

#### 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions:      | Wear proper protective equipment.   |
|----------------------------|---|
|                            | In case of insufficient ventilation, wear suitable respiratory equipment.       |
|                            | Shut off all sources of ignition.   |
|                            | Avoid contact with skin and eyes.   |
|                            | Remove ignition sources and ventilate the area.                                 |
|                            | Evacuate personnel to safe area.evacuate non-essential personnel.               |
| Environmental precautions: | Do not wash away into sewer,watercourse or river.                               |
|                            | Prevent spills from entaering a lot of outflow, watercourses or low areas.      |
|                            | In oder to prevent a lot of outflow, it shoulds with the ground etc.            |
| Methods for cleaning up:   | Take up spilled material with ashes or other absorbents.                        |
|                            | After material is completely picked up, wash the spill site with soap and water |
|                            | and ventilate the area.   |
|                            | Put all wastes in a plastic bag for disposal and seal it tightly.               |
|                            | Remove, clean, or dispose of contaminated clothing.                             |
|                            |   |

#### 7. HANDLING AND STORAGE

Handling: Keep away from sources of ignition. - No smoking. Avoid contact with eyes. Avoid contact withskin. Do not swallow. Do not breathe gas/fumes/vapour/spray. Use only in well-ventilated areas. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.
Storage: Keep out of the reach of children. Keep container in a well-ventilated place. Keep away from food, drink and animal feedingstuffs.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Ingredient (s)             | Exposure Limits (ACGIH-TLV) |
|----------------------------|-----------------------------|
| chromium(iii) oxide        | 0.5mg/m3,as Cr              |
| water-soluble copper salts | 1mg/m3, as Cu               |

Exposure controls:

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits.

Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls:

Maintain levels below Community environmental protection thresholds.

General hygiene considerations:

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid. Colour: Black Odour: Slight pH: 8.0 - 9.0 Boiling point / boiling range: 100°C (water) Melting point / melting range: No information available. Flash point: No information available. Flammability (solid, gas): No information available. Explosive properties: No information available. Oxidising properties: No information available. Vapour pressure: No information available. Relative density (of concentrate): 1.134 Solutility (in water) (of concentrate): Complete. Solutility (in oil) (of concentrate): Impossible Partition coefficient: n-octanol/water: No information available. Viscosity (of concentrate): No information available. Miscibility: No information available. Vapor density: No information available. Evaporation rate: No information available. Auto-ignition temperature: No information available. Lower Flammability Limit: No information available. Upper Flammability Limit: No information available.

#### 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Conditions to avoid: No dangerous reaction known under conditions of normal use. Materials to avoid: Acids. Bases. Oxidizers. Reducing agents. Hazardous decomposition products: No information available.

#### 11. TOXICOLOGICAL INFORMATION

 chromium(iii) oxide No information available.
 water-soluble copper salts No information available.

#### 12. ECOLOGICAL INFORMATION

Toxicity : No further relevant information available.

Aquatic toxicity:

■chromium(iii) oxide Hazardous to the aquatic environment (acute) : category 1 Hazardous to the aquatic environment (chronic) : category 1

Persistence and degradability: No further relevant information available. Behavior in environmental systems: No further relevant information available. Bioaccumulative potential: No further relevant information available. Mobility in soil: No further relevant information available. Additional ecological information: No further relevant information available.

#### 13. DISPOSAL CONSIDERATIONS

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### 14. TRANSPORT INFORMATION

■Land transport Not classified as a dangerous good under transport regulations.

■Inland waterway transport Not classified as a dangerous good under transport regulations.

■Sea transport Not classified as a dangerous good under transport regulations.

■Air transport Not classified as a dangerous good under transport regulations.

■UN No. Not applicable It does not fall under the dangerous goods under the UN Recommendation.

15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

■Law concerning Pollutant Release and Transfer Register / PRTR Law chromium(iii) oxide(Class1 No.87), water-soluble copper salts(class1 No.272)

#### 16. OTHER INFORMATION

Disclaimer: JET BLACK carry CL mark.

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

|                             | T.CHEMICAL PRODUCT AND IDENTIFICATION  |
|-----------------------------|--|
| Chemical product name:      | TURNER Acryl Gouache Glass Primer, Metal Primer  |
| Colors:                     | Lemon, Light Green, Sky Blue, Blue Compose, Vermilion, Scarlet, Orange, Green,<br>Deep Green, Ultramarine, Violet, Rose, Pink, Viridian, Opera red, Red Purple |
| Name of manufacturer:       | Turner Colour Works Ltd.   |
| Address:                    | 2–15–7 mitsuyakita yodogawa–ku,Osaka–fu,Japan  |
| Name of section:            | R&D  |
| Phone number:               | :+81- (0) 6-6308-1216  |
| Emergency call:             | :+81- (0) 6-6308-1216  |
| Fax number:                 | :+81- (0) 6-6305-3018  |
| E-MAIL:                     | kenkyuu@turner.co.jp   |
| Revised Date / Issued Data: | Mar.29.2018  |
| Form No.:                   | 2033-03  |
|                             |  |

## **GHS Classification**

| Physical Hazards:    | Without the need of classification          |
|----------------------|---|
| Health Hazards:      | Classification not possible, Not classified |
| Environment Hazards: | Classification not possible, Not classified |
| Hazard symbol        | None  |
| Signal word          | None  |
| Hazard statement     |   |
|                      | None  |

## Precautionary statements

Security precaution:

None

#### Response:

None

## storage:

P405 Store locked up.

#### Disposal:

P501 Properly dispose of to be in accordance with the laws and regulations of the contents / container .

## Substance/Mixture: Mixture

eneral product description: Synthetic resin paints

Ingredients and composition (%):

| Name of substance | Acrylic emulsion |  |
|-------------------|------------------|--|
| Cas No.           | secret           |  |
| Glass Primer      | 75-80            |  |
| Metal Primer      | 75-80            |  |
|                   |                  |  |
|                   |                  |  |

|               | 4.FIRST – AID MEASURES   |
|---------------|--|
| Eye contact:  | Flush eyes well with flooding amounts of running water for at least 15minutes.   |
|               | Remove contact lenses, if worn next to easily remove them.   |
|               | Wash thoroughly to the back of the eyelids.  |
|               | Take a doctor's diagnosis as soon as possible.   |
| Skin contact: | Wipe off deposits quickly with cloth.  |
|               | Wash thoroughly with large amounts of water and soap or skin detergent.  |
|               | Do not use solvent or thinner.   |
|               | If there is a change in appearance, if there is irritation / pain, if you feel uncomfortable get a doctor's diagnosis.   |
| Inhalation:   | If you feel bad by inhaling steam, gas, etc.<br>move to a fresh air place and rest in a posture that is easy to breathe. |
|               | If you feel unwell, call a doctor.   |
|               | If symptoms persist, call a doctor.  |
| Ingestion:    | In case of accidental swallowing, get medical attention immediately after taking a rest.                                 |
|               | Do not swallow vomit.  |
|               | Do not induce vomiting except by doctor's instructions.  |
|               |  |
|               | 5.FIRE – FIGHTING MEASURES   |

## 5.FIRE - FIGHTING MEASURI

Specific hazards regarding with fire fighting measure:

Apply water from a safe distance to cool and project surrounding area.

Firefighters should wear proper protective equipment and self-breathing apparatus.

Suitable extinguishing media: Water/Dry chemical powder/Carbon dioxide/Foam and dry sand.

Hazardous combustion products: Carbon monoxide, smoke, fumes and oxides of carbon.

## 6.ACCIDENTAL RELEASE MEASURES

| Personal precautions:      | Wear proper protective equipment.  |
|----------------------------|--|
|                            | In case of insufficient ventilation, wear suitable respiratory equipment.  |
|                            | Shut off all sources of ignition.  |
|                            | Avoid contact with skin and eyes.  |
|                            | Remove ignition sources and ventilate the area.  |
|                            | Evacuate personnel to safe area.evacuate non-essential personnel.  |
| Environmental precautions: | Do not wash away into sewer,watercourse or river.  |
|                            | Prevent product from discharging into the environment.   |
|                            | After collecting spills, wash with plenty of water and dispersing agent.   |
| Methods for cleaning up:   | Collect the spill into a sealable container and transfer it to a safe place.   |
|                            | Handle deposits, waste, etc. according to relevant laws and regulations.   |
|                            | Recovers with scoops, waste etc.   |
|                            | Put all wastes in a plastic bag for disposal and seal it tightly.  |
|                            | In case of large amount of embankment etc. to prevent spills. Washing with water, etc., also cause emissions to rivers and the like, causing environmental pollution, so be careful. |
|                            |  |

#### 7.HANDLING AND STORAGE

Handling: Handle in a well-ventilated place.

Keep containers tightly closed each time.

Touch the skin, mucosa, or clothing, and wear protective equipment to prevent contact with eyes.

Wash hands, face etc thoroughly after handling, do not bring pollution protective equipment such as gloves to resting place etc.

Storage: Keep out of the reach of children. Keep container in a well-ventilated place. Keep away from food,drink and animal feedingstuffs.

## **8.EXPOSURE CONTROLS/PERSONAL PROTECTION**

| Ingredient(s) | Exposure Limits (ACGIH-TLV) |  |
|---------------|-----------------------------|--|
|               |                             |  |
| N/A           |                             |  |
|               |                             |  |

Exposure controls

Occupational exposure controls: Provide adequate local exhaust ventilation to maintainworker exposure below exposure limits.

Personal protective equipment

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Wear suitable gloves.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

| 9.PHYSICAL AND CHEMICAL PROPERTIES      |                           |  |  |
|---|---------------------------|--|--|
| Appearance:                             | Liquid.                   |  |  |
| Colour:                                 | Transparent after drying  |  |  |
| Odour:                                  | Acrylic odor              |  |  |
| pH:                                     | 8.0 - 9.0                 |  |  |
| Boiling point / boiling range:          | 100°C(Water)              |  |  |
| Melting point / melting range:          | No information available. |  |  |
| Flash point:                            | No information available. |  |  |
| Flammability (solid, gas):              | No information available. |  |  |
| Explosive properties:                   | No information available. |  |  |
| Oxidising properties:                   | No information available. |  |  |
| Vapour pressure:                        | No information available. |  |  |
| Relative density (of concentrate):      | 1.00 - 1.10               |  |  |
| Solutility (in water) (of concentrate): | Complete.                 |  |  |
| Solutility (in oil) (of concentrate):   | Impossible                |  |  |
| Partition coefficient: n-octanol/water: | No information available. |  |  |
| Viscosity (of concentrate):             | No information available. |  |  |
| Miscibility:                            | No information available. |  |  |
| Vapor density:                          | No information available. |  |  |
| Evaporation rate:                       | No information available. |  |  |
| Auto-ignition temperature:              | No information available. |  |  |
| Lower Flammability Limit:               | No information available. |  |  |
| Upper Flammability Limit:               | No information available. |  |  |
|   |                           |  |  |

## **10.STABILITY AND REACTIVITY**

Stability: Stable under recommended storage conditions.

Conditions to avoid: No dangerous reaction known under conditions of normal use.

Incompatible hazardous substance: Reacts with oxidizing substances.

Hazardous decomposition products: If this material does not burn, if the coating etc. burns, it may generate harmful gas such as CO, NOx, halogen gas.

## **11.TOXICOLOGICAL INFORMATION**

| Component | Acute toxicity |                     |                         | IARC group |
|-----------|----------------|---------------------|-------------------------|------------|
|           | Oral(mg/kg)    | Percutaneous(mg/kg) | Inhalation: steam(mg/L) | IANC group |
|           |                |                     |                         |            |
| N/A       |                |                     |                         |            |
|           |                |                     |                         |            |
|           |                |                     |                         |            |

## **12.ECOLOGICAL INFORMATION**

| Component | HAZARDOUS TO THE AQUATIC<br>ENVIRONMENT (ACUTE) | HAZARDOUS TO THE AQUATIC<br>ENVIRONMENT (CHRONIC) |
|-----------|---|---|
|           |   |   |
| N/A       |   |   |
|           |   |   |
|           |   |   |

#### **13.DISPOSAL CONSIDERATIONS**

Do not dump sewers, on the ground or into any of water. Consult an expert on the disposal of recovered material. Be sure to mention name, catalog number quantity of the material. Disposal must be made according to official regulations.

#### **14.TRANSPORT INFORMATION**

Land transport

Not classified as a dangerous good under transport regulations.

Inland waterway transport

Not classified as a dangerous good under transport regulations.

Sea transport Not classified as a dangerous good under transport regulations.

Air transport Not classified as a dangerous good under transport regulations.

UN No.

Not applicable

It does not fall under the dangerous goods under the UN Recommendation.

#### **15.REGULATORY INFORMATION**

Regulatory information with regard to this substance in your country or in your region be examined by your own responsibility.

## 16.OTHER INFORMATION Disclaimer: The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.