SAFETY DATA SHEET

1.CHEMICAL PRODUCT AND IDENTIFICATION

Chemical product name: Pigment Ink

Name of manufacturer: Turner Colour Works Ltd.

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

Name of section: R&D

 $\begin{array}{lll} \mbox{Phone number:} & +81-(0)6-6308-1216 \\ \mbox{Emergency call:} & +81-(0)6-6308-1216 \\ \mbox{Fax number:} & +81-(0)6-6305-3018 \\ \mbox{E-MAIL:} & \mbox{kenkyuu@turner.co.jp} \end{array}$

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2.HAZARDS IDENTIFICATION

GHS Classifica

GHS Physical Hazards: Not applicable.

GHS Health and Environmental Hazards:

Serious eye damage/Eye irritation:

Reproductive toxicity:

Specific target organ systemic toxicity(single exposure):

Specific target organ systemic toxicity(repeated exposure):

category 2

category 2

category 2

hazard pictograms:





Signal word: Warning

Hazard statements:

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child.

H371 May cause damage to organs.

H373 May cause damage to organs through prolonged or repeated exposure.

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/fume/gas/mist/vapors/spray.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

storage:

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

Disposal:

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

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3.COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture:

Mixture

General prod

Aqueous pigment ink

Components:

	CAS No.	EINECS No.	%
ethylene glycol	107-21-1	203-473-3	< 5
2-(2-butoxyethoxy)ethanol	112-34-5	203-961-6	1 - 3
glycerine	56-81-5	200-289-5	5 -10
propylene glycol	57-55-6	200-388-0	5 –10
propan-2-ol	67-63-0	200-661-7	1 - 5
C.I. Pigment Green 7	1328-53-6	215-524-7	< 5
C.I. Pigment Blue 15	147-14-8	205-685-1	<10
C.I. Pigment Black 7	1333-86-4	215-609-9	<10
C.l. Pigment Orange 16	6505-28-8	229-388-1	< 5
C.I. Pigment Pink 122	980-26-7	213-561-3	< 5
C.I. Pigment Violet 23	6358-30-1	228-767-9	< 5
C.I. Pigment Red 258	57301-22-1	_	<10
C.I. Pigment Yellow 12	6358-85-6	228-787-8	< 5
Acylic Resin(Water soluble)	Registered	Polymer	1 – 5
Water	7732-18-5	231-791-2	55 -80

4.FIRST - AID MEASURES

Eye contact:

Immediately wash with plenty of clean running water for at least 15 minutes. If you are wearing contact lenses and can easily remove them, remove them.

Thoroughly wash the back of the eyelids.

Seek medical attention if there is any change in appearance or irritation / pain.

Skin contact:

Quickly wipe off the deposits with a cloth.

Remove all contaminated clothing..

Thoroughly wash off with plenty of water and soap or skin cleanser. Do not use solvent or thinner. Seek medical attention if you feel unwell if you have any changes in appearance or irritation / pain.

Inhalation:

If you feel sick after inhaling vapor, gas, etc., move it to a place with fresh air.

Rest in a posture that makes it easy to breathe. Contact your doctor if you feel unwell.

Ingestion:

If swallowed by mistake, rest and seek medical attention immediately.

Do not swallow vomit.

Do not force vomiting except as directed by your doctor.

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 entering a lot of outflow, watercourses or low areas.

In order to prevent a lot of outflow, it should 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 with skin. Do not swallow. Do not breathe gas/fumes/vapor/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 feeding stuffs.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

Biological limit values

No biological limit allocated.

Components with workplace control parameters

ethylene glycol CAS-No. 107-21-1

IOELV Short-term value: 104mg/m3, 40ppm

Long-term value: 52mg/m3, 20ppm

2-(2-butoxyethoxy)ethanol CAS-No. 112-34-5

IOELV Short-term value: 101.2mg/m3, 15ppm

Long-term value: 67.5mg/m3, 10ppm

Exposure controls:

Occupational exposure Provide adequate local exhaust ventilation to maintain worker exposure below

controls: 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. Color: Each color

Odor: Faint alcohol odor pH: 8.0 - 10.5
Boiling point / boiling range: 100°C (water)

Melting point / melting range:

Flash point:

No information available.

Vapor pressure:

No information available.

Relative density (of concentrate): 1.0 - 1.1
Solubility (in water) (of concentrate): Complete.
Solubility (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

Information on toxicological effects

· Acute toxicity:

LD/LC50 values relevant for classification:

ethylene glycol		10/-21-1
Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rbt)

Glycerin 112-34-5

Oral LD50 12600 mg/kg (rat)

propylene glycol 57-55-6

 Oral
 LD50
 20000 mg/kg (rat)

 Dermal
 LD50
 20800 mg/kg (rbt)

2-(2-butoxyethoxy)ethanol 112-34-5

 $\begin{array}{ccc} \text{Oral} & \text{LD50} & \text{5660 mg/kg (rat)} \\ \text{Dermal} & \text{LD50} & \text{4000 mg/kg (rbt)} \end{array}$

propan-2-ol 67-63-0

Oral LD50 5840 mg/kg (rat)
Dermal LD50 9530 mg/kg (rbt)
LC50/4h 30 mg/l (rat)

12.ECOLOGICAL INFORMATION

Persistence and degradability:

Behavior in environmental systems:

Bioaccumulative potential:

Mobility in soil:

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

UN-Number ADR, AND, IMDG, IATA Void UN-proper shipping name ADR, AND, IMDG, IATA Void Transport hazard class(es) ADR, AND, IMDG, IATA Void Packing group ADR, AND, IATA Void

Environmental hazards: Marine pollutant: ethylene glycol

[7.HANDOLING AND STRAGE] Reference

Coarse handling, such as making a cargo reverse or throwing it, is not carried out.

15.REGULATORY INFORMATION

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

16.0THER 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.