

# Safety Data Sheets

## 1. IDENTIFICATION

|                                     |  |
|-------------------------------------|--|
| Product Identifier                  | UV ink LUS-210 Yellow                                  |
| Product code                        | LUS21-Y-BA   |
| Recommended use and restriction use | INK JET ink  |
| Supplier name                       | MIMAKI ENGINEERING CO., LTD.                           |
| Address                             | 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN   |
| Telephone number                    | +81-268-64-2413  |
| Importer / Distributor Information  | MIMAKI SINGAPORE PTE. LTD.                             |
| Address                             | 31 Kaki Bukit Road 3 Singapore 417818 TechLink #02-03  |
| Telephone number                    | +65-6508-2789  |
| Emergency telephone number          | +65 3165 2217 (within Singapore only)<br>+65 3158 1074 |

## 2. HAZARDS IDENTIFICATION

### GHS CLASSIFICATION

|                               |  |
|-------------------------------|--|
| Physical and chemical hazards | Flammable liquids Not classified   |
| Health hazards                | Skin corrosion/irritation Category 2<br>Serious eye damage/eye irritation Category 2A<br>Sensitization – skin Category 1<br>Reproductive toxicity Category 2 |
| Environmental Hazards         | Hazard to the aquatic environment (acute hazard) Category 1<br>Hazard to the aquatic environment (long-term hazard) Category 2                               |

### GHS LABEL ELEMENTS

#### Pictograms



#### Signal Word

Warning

#### Hazard Statements

H315 Causes skin irritation  
H319 Causes serious eye irritation  
H317 May cause an allergic skin reaction  
H361 Suspected of damaging fertility or the unborn child  
H400 Very toxic to aquatic life  
H411 Toxic to aquatic life with long lasting effects

#### Precautionary Statements

##### Prevention

Obtain special instructions before use(P201)  
Do not handle until all safety precautions have been read and understood(P202)  
Avoid breathing mist, vapours and spray.(P261)  
Wash thoroughly after handling.(P264)  
Contaminated work clothing should not be allowed out of the workplace.(P272)

## Response

Avoid release to the environment(P273)  
Wear protective gloves, eye protection and face protection.(P280)  
IF ON SKIN: Wash with plenty of soap and water(P302+P352)  
IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing(P305+P351+P338)  
IF exposed or concerned: Get medical advice/attention(P308+P313)  
Specific treatment.(P321)  
If skin irritation or rash occurs: Get medical advice/attention(P333+P313)  
If eye irritation persists: Get medical advice/attention(P337+P313)  
Take off contaminated clothing and wash it before reuse.(P362+P364)  
Collect spillage(P391)  
Store locked up(P405)  
Dispose of contents/ container to an approved landfill.(P501)

## Storage

## Disposal

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Substances or mixtures

#### Mixtures

| Chemical name  | Contents | Chemical Formula | CAS RN       |
|--|----------|------------------|--------------|
| Acrylate Resin   | 20-30%   | Unknown          | Confidential |
| Hexane-1,6-diyl diacrylate                                     | 55-65%   | Unknown          | 13048-33-4   |
| 2-Propen-1-one, 1-(4-morpholinyl)-                             | 0.1-1%   | Unknown          | 5117-12-4    |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                | 5-10%    | Unknown          | 75980-60-8   |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | 5-10%    | Unknown          | 68511-62-6   |

### 4. FIRST-AID MEASURES

#### In case of inhalation

IF exposed or concerned: Get medical advice and attention.  
Call a doctor if you feel unwell.

#### In case of skin contact

IF exposed or concerned: Get medical advice and attention.  
IF ON SKIN: Wash with plenty of soap and water.  
Take of contaminated clothing and wash before re-use.  
If skin irritation or rash occurs, get medical advice and attention.  
Specific treatment.

#### In case of eye contact

IF exposed or concerned: Get medical advice and attention.  
IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

#### In case of ingestion

IF exposed or concerned: Get medical advice and attention.  
Rinse mouth.  
IF SWALLOWED: Call a doctor if you feel unwell.

## Safety Data Sheets

### 5. FIRE-FIGHTING MEASURES

|  |   |
|--|---|
| Suitable fire-extinguishing media            | Dry chemicals, CO2, fog, alcohol-resistant foam or sand.  |
| Not suitable extinguishing media             | Cylindric water.  |
| Specific hazards arising from the chemical   | Risk of producing harmful gases such as carbon monoxide. Avoid inhalation of smoke or gases.    |
| Special protective actions for fire fighters | Use goggles in combination with dust mask, and another protections as appropriate to situation. |

### 6. ACCIDENTAL RELEASE MEASURES

|   |  |
|---|--|
| Personal precautions, protective equipment and emergency procedures | Use goggles in combination with dust mask, and another protections as appropriate to situation.<br>Large spills :Evacuate area.<br>Ensure adequate ventilation.                |
| Environmental precautions   | Collect spillage.<br>Do not discharge into the drains, surface waters or ground water directly.  |
| Methods and materials for containment and cleaning up               | small spill : absorb with material such as non-combustible materialwash thoroughly after handling<br>Large spills: Dike spills and dispose of in safe area.                    |
| Prevention Measures for Secondary Accidents                         | Keep away from sources of ignition and prepare extinguishing media.<br><br>Risk of slipping. Spilled material forms slippery floor.<br>Do not recklessly walk on the spillage. |

### 7. HANDLING AND STORAGE

|                             |  |
|-----------------------------|--|
| Handling                    |  |
| Technical measures          | Use local exhaust ventilation in case of production of fume or mist.<br>Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.   |
| Safe handling advice        | Wash hands thoroughly after handling.<br>Wear protective gloves/protective clothing/eye protection/face protection.<br>Contaminated work clothing should not be allowed out of the workplace.<br>Avoid breathing dust/fume/gas/mist/vapours/spray. |
| Storage                     |  |
| Suitable storage conditions | Store locked up.   |

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

|                      |  |
|----------------------|--|
| Engineering measures | Use local exhaust ventilation in case of production of fume or mist.<br>Facilities storing or utilizing this material should be equipped with an |
|----------------------|--|

## Safety Data Sheets

eyewash facility and a safety shower.

Use explosion-proof electrical equipment and prevent from static electricity.

### Individual protection measures

Respiratory protection

Hand protection

Eye protection

Skin and body protection

If necessary, wear respiratory protection.

Wear protective gloves.

Wear eye protection/face protection.

Wear protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |                    |
|--|--------------------|
| Appearance                             |                    |
| Physical State                         | Liquid             |
| Color                                  | yellow             |
| Odor                                   | ester              |
| Odor threshold                         | No data available  |
| pH                                     | No data available  |
| Melting point                          | No data available  |
| Boiling point                          | No data available  |
| Flash point                            | >100°C(closed cup) |
| Evaporation rate                       | No data available  |
| Flammability(Solid,Gas)                | No data available  |
| Flammability or explosive limits       | No data available  |
| Vapor pressure                         | No data available  |
| Vapor density                          | No data available  |
| Relative density                       | No data available  |
| Solubility(ies)                        | No data available  |
| Partition coefficient: n-octanol/water | No data available  |
| Auto-ignition temperature              | No data available  |
| Decomposition temperature              | No data available  |
| Viscosity                              | No data available  |

## 10. STABILITY AND REACTIVITY

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available  |
| Chemical stability                 | Stable under normal conditions of use.  |
| Possibility of hazardous reactions | Polymerization and curing may occur when exposed to light, particularly ultraviolet rays. |
| Conditions to avoid                | Heat source, storage near fire source, direct sunlight, ultraviolet rays                  |
| Incompatible materials             | Oxidizing agent, oxides of Iron, strong base  |
| Hazardous decomposition products   | Carbon dioxide, carbon monoxide   |

## 11. TOXICOLOGICAL INFORMATION

# Safety Data Sheets

|  |  |
|--|--|
| Acute toxicity (Oral)                              | Unable to classify due to insufficient data.   |
| Acute toxicity (Dermal)                            | Unable to classify due to insufficient data.   |
| Acute toxicity (Inhalation : Gases)                | Does not fall under gas based on GHS definitions.  |
| Acute toxicity (Inhalation : Vapours)              | Unable to classify due to insufficient data.   |
| Acute toxicity (Inhalation : dust/mist)            | Unable to classify due to insufficient data.   |
| Skin corrosion/ Irritation                         | Category 2:13048-33-4 (source: Registered substances (ECHA))<br>Classification not possible:75980-60-8 (source: 1272/2008/EC),<br>5117-12-4 (source: 1272/2008/EC)<br>No data:68511-62-6 (source: None), Confidential (source: None)           |
|  | Sum of Category 2 Concentration limit = 10%. Classification result = Category 2.   |
| Serious eye damage/ irritation                     | Category 1:5117-12-4 (source: 1272/2008/EC)<br>Category 2:13048-33-4 (source: Registered substances (ECHA))<br>Classification not possible:75980-60-8 (source: 1272/2008/EC)<br>No data:68511-62-6 (source: None), Confidential (source: None) |
|  | Sum of Eye category 2 Concentration limit = 10%. Classification result = Category 2A.  |
| Respiratory Sensitization                          | Unable to classify due to insufficient data.   |
| Skin Sensitization                                 | Category 1:5117-12-4 (source: 1272/2008/EC), 13048-33-4 (source: Registered substances (ECHA))<br>Classification not possible:75980-60-8 (source: 1272/2008/EC)<br>No data:68511-62-6 (source: None), Confidential (source: None)              |
|  | 13048-33-4 >= 1% Classification result = Category 1<br>Ingredients not contributing to classification:<br>5117-12-4 (category = Category 1, source: 1272/2008/EC)  |
| Germ cell mutagenicity                             | Unable to classify due to insufficient data.   |
| Carcinogenicity                                    | Unable to classify due to insufficient data.   |
| Reproductive toxicity                              | Category 2:75980-60-8 (source: 1272/2008/EC)<br>Classification not possible:5117-12-4 (source: 1272/2008/EC),<br>13048-33-4 (source: Registered substances (ECHA))<br>No data:68511-62-6 (source: None), Confidential (source: None)           |
|  | 75980-60-8 >= 3% Classification result = Category 2  |
| Reproductive toxicity, effects on or via lactation | Unable to classify due to insufficient data.   |
| Specific target organ Toxicity – Single Exposure   | Unable to classify due to insufficient data.   |
| Specific target organ toxicity – Repeated Exposure | Category 2:5117-12-4 (organ = ---, source: 1272/2008/EC)<br>Classification not possible:75980-60-8 (source: 1272/2008/EC),   |

# Safety Data Sheets

13048-33-4 (source: Registered substances (ECHA))

No data:68511-62-6 (source: None), Confidential (source: None)

Substances classified as hazardous are below the concentration limit. Contains substance of unknown toxicity. Changed from Not classified to Classification not possible.

Unable to classify due to insufficient data.

Aspiration hazard

## 12. ECOLOGICAL INFORMATION

Hazardous to the Aquatic Environment –  
Acute Toxicity

Category 1:13048-33-4 (source: Registered substances (ECHA))  
Classification not possible:75980-60-8 (source: 1272/2008/EC),  
5117-12-4 (source: 1272/2008/EC)  
No data:68511-62-6 (source: None), Confidential (source: None)

Hazardous to the Aquatic Environment –  
Chronic Toxicity

Category 1 x M factor  $\geq$  concentration limit(25%). Classification result = Category 1.

Category 2:13048-33-4 (source: Registered substances (ECHA))  
Classification not possible:75980-60-8 (source: 1272/2008/EC),  
5117-12-4 (source: 1272/2008/EC)  
No data:68511-62-6 (source: None), Confidential (source: None)

Hazardous to the Ozone layer

(M factor x 10 x Category 1) + Category 2  $\geq$  Concentration limit(25%). Classification result = Category 2.  
Unable to classify due to insufficient data.

## 13. DISPOSAL CONSIDERATIONS

Residual Waste

Before disposal, make the wastes harmless, stabilized, and neutralized, and minimize danger and toxicity of the wastes. Dispose of waste in accordance with local, state and federal regulations.

Contaminated Container and Packaging

Passed to a licensed waste contractor.  
In case of disposal of empty containers, remove the content thoroughly.

## 14. TRANSPORT INFORMATION

International regulations

Sea(IMDG)

UN number

3082

UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport hazard class(es)

9

Packing group

III

Special Provision

2.10.2.7 \*1

# Safety Data Sheets

air(IATA)

|                            |   |
|----------------------------|---|
| UN number                  | 3082  |
| UN proper shipping name    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| Transport hazard class(es) | 9   |
| Packing group              | III   |
| Special Provision          | A197 *1   |

\*1 Single or inner packaging less than 5 L (liquid) or 5 kg net (solids) is excepted from Dangerous Goods regulations -- see UN Special Provision.

## 15. REGULATORY INFORMATION

No main regulation

Component Analysis – Inventory

Hexane-1,6-diyl diacrylate (13048-33-4)

| TSCA –<br>United<br>States | ENCS –<br>Japan | KECI Annex<br>1, 2 –<br>Korea | IECSC –<br>China | DSL/NDSL<br>– Canada | PICCS –<br>Philippines | AICS –<br>Australia | EINECS/ELINCS<br>– European<br>Union | TCSI –<br>Taiwan | NZIoC –<br>New<br>Zealand |
|----------------------------|-----------------|-------------------------------|------------------|----------------------|------------------------|---------------------|--------------------------------------|------------------|---------------------------|
| Yes                        | Yes             | Yes                           | Yes              | Yes                  | Yes                    | Yes                 | Yes                                  | Yes              | Yes                       |

2-Propen-1-one, 1-(4-morpholinyl)- (5117-12-4)

| TSCA –<br>United<br>States | ENCS –<br>Japan | KECI Annex<br>1, 2 –<br>Korea | IECSC –<br>China | DSL/NDSL<br>– Canada | PICCS –<br>Philippines | AICS –<br>Australia | EINECS/ELINCS<br>– European<br>Union | TCSI –<br>Taiwan | NZIoC –<br>New<br>Zealand |
|----------------------------|-----------------|-------------------------------|------------------|----------------------|------------------------|---------------------|--------------------------------------|------------------|---------------------------|
| Yes                        | Yes             | Yes                           | Yes              | Yes                  | Yes                    | Yes                 | Yes                                  | Yes              | Yes                       |

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)

| TSCA –<br>United<br>States | ENCS –<br>Japan | KECI Annex<br>1, 2 –<br>Korea | IECSC –<br>China | DSL/NDSL<br>– Canada | PICCS –<br>Philippines | AICS –<br>Australia | EINECS/ELINCS<br>– European<br>Union | TCSI –<br>Taiwan | NZIoC –<br>New<br>Zealand |
|----------------------------|-----------------|-------------------------------|------------------|----------------------|------------------------|---------------------|--------------------------------------|------------------|---------------------------|
| Yes                        | Yes             | Yes                           | Yes              | Yes                  | Yes                    | Yes                 | Yes                                  | Yes              | Yes                       |

Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes (68511-62-6)

| TSCA –<br>United<br>States | ENCS –<br>Japan | KECI Annex<br>1, 2 –<br>Korea | IECSC –<br>China | DSL/NDSL<br>– Canada | PICCS –<br>Philippines | AICS –<br>Australia | EINECS/ELINCS<br>– European<br>Union | TCSI –<br>Taiwan | NZIoC –<br>New<br>Zealand |
|----------------------------|-----------------|-------------------------------|------------------|----------------------|------------------------|---------------------|--------------------------------------|------------------|---------------------------|
| Yes                        | Yes             | Yes                           | Yes              | Yes                  | Yes                    | Yes                 | Yes                                  | Yes              | Yes                       |

## 16. OTHER INFORMATION

Literature References

NITE GHS

EU CLP Regulation, AnnexVI

Other data

The information suggested in this Safety Data Sheet does not comprehend everything and should be adopted only as a guide. The accuracy of the information and recommendations suggested herein are credible. However the company makes no warranty regarding such information and recommendations and disclaims all liability for reliance thereon.