# Safety Data Sheets

## Section 1 – Identification

| | |
|---|---|
| Product identifier | IJ Primer PR-200 |
| Product code | PR200-Z-22/PR200-Z-60/PR200-Z-BA/PR200-Z-BA |
| Ink Ver. | 3, 4 |
| Recommended use of the chemical and restrictions on use | IJ Ink Primer of UV Cure ink |
| Manufacturer | MIMAKI ENGINEERING CO., LTD.<br>2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN<br>+81-268-64-2413 |
| Importer / Distributor Information | MIMAKI AUSTRALIA PTY LTD.<br>Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia<br>+ 61-2-8036-4500 |
| Emergency telephone number | +61 2 8014 4558 (within Australia only)<br>18000 74234 (within Australia only)<br>+65 3158 1074 |

## Section 2 – Hazard(s) Identification

Classification of the hazardous chemical

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Sensitization – skin Category 1
Specific target organ toxicity (single exposure) Category 3 (respiratory tract irritation)
Hazard to the aquatic environment (acute hazard) Category 1
Hazard to the aquatic environment (long-term hazard) Category 1

Label elements, including precautionary statements

Pictograms or Symbols



Signal Word: Warning

Hazard Statements:
H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H335 May cause respiratory irritation
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention:
Avoid breathing mist, vapours and spray.(P261)
Wash thoroughly after handling.(P264)
Use only outdoors or in a well-ventilated area(P271)

| | |
|---|---|
| | Contaminated work clothing should not be allowed out of the workplace.(P272)<br>Avoid release to the environment(P273)<br>Wear protective gloves, eye protection and face protection.(P280) |
| Response | IF ON SKIN: Wash with plenty of soap and water(P302+P352)<br>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.(P304+P340)<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing(P305+P351+P338)<br>Call a POISON CENTER/doctor. If you feel unwell.(P312)<br>Specific treatment.(P321)<br>If skin irritation or rash occurs: Get medical advice/attention(P333+P313)<br>If eye irritation persists: Get medical advice/attention(P337+P313)<br>Take off contaminated clothing and wash it before reuse.(P362)<br>Collect spillage(P391) |
| Storage | Store in a well-ventilated place. Keep container tightly closed.(P403+P233)<br>Store locked up(P405) |
| Disposal | Dispose of contents/ container to an approved landfill.(P501) |

## Section 3 – Composition and Information on Ingredients

Substances or mixture　　Mixtures

| Ingredients name | Contents | Chemical formula | CAS RN |
|---|---|---|---|
| Aliphatic monomer | 80-90% | Unknown | Confidential |
| aromatic monomer | 1-10% | Unknown | Confidential |
| Polyester Oligomer | <5% | Unknown | Confidential |
| Photopolymerization initiator | <5% | Unknown | Confidential |
| Other | <1% | Unknown | Confidential |
| 2,6-Di-tert-butyl-p-cresol (BHT) | <0.2% | Unknown | 128-37-0 |

## Section 4 – First Aid Measures

| | |
|---|---|
| In case of inhalation | Call a doctor if you feel unwell. |
| In case of skin contact | IF ON SKIN: Wash with plenty of soap and water.<br>If skin irritation occurs: Get medical advice and attention. |
| In case of eye contact | 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 | Rinse mouth.<br>IF SWALLOWED: Call a doctor if you feel unwell. |

## Section 5 – Fire Fighting Measures

| | |
|---|---|
| Suitable extinguishing equipment | Dry chemical, alcohol-resistant foam, CO2, 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 equipment and precautions for fire fighters | Use goggles in combination with dust mask, and another protections as appropriate to situation. |

## Section 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 | 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. |

## Section 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. |

Storage

| | |
|---|---|
| Suitable storage conditions | Store in well-ventilated place. |

## Section 8 - Exposure controls and personal protection

Control parameters

| | ACGIH (TLV) | OSHA (PEL) | Occupational Exposure Standards |
|---|---|---|---|
| 2,6-Di-tert-butyl-p-cresol (BHT) | TWA 2 mg/m3(IFV),STEL - | Not established | 10 mg/m3 TWA |

| | |
|---|---|
| Engineering controls | 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.<br>Use explosion-proof electrical equipment and prevent from static electricity. |
| Individual protection measures, for example personal protective equipment (PPE) | |
| Eye and face protection | If necessary,wear protective eye protection. |
| Skin protection | If necessary,wear protective clothing. |
| Hand protection | If necessary,wear protective gloves. |
| Respiratory protection | If necessary, wear respiratory protection. |

## Section 9 - Physical and Chemical Properties

| | |
|---|---|
| Appearance | |
| Physical state | Liquid |
| Color | Yellow |
| Odor | Slight odor |
| Odor threshold | No data available |
| pH | No data available |
| Melting point/freezing point | No data available |
| Initial boiling point and boiling ranget | No data available |
| Flash point | 106℃ |
| 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 | Non-water-soluble |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |

## Section 10 - Stability and Reactivity

| | |
|---|---|
| Reactivity | When heated, it decomposes to produce carbon monoxide and carbon dioxide. |
| Chemical stability | Stable under normal conditions of use. |
| Possibility of hazardous reactions | No information available |
| Conditions to avoid | Sunlight, heat, open flame, high temperature, sparks, static electricity, and other sources of ignition. |
| Incompatible materials | No information available |
| Hazardous decomposition products | Combustion produces carbon monoxide, carbon dioxide. |

## Section 11 - Toxicological Information

| | |
|---|---|
| Acute toxicity (Oral) | Category 4:Other (converted value = 500mg/kg, source: Registered substances (ECHA))<br>Not classified:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE), Aliphatic monomer (toxicity value = 5000mg/kg, source: Registered substances (ECHA))<br>Classification not possible:aromatic monomer (source: GHS Hazardous Chemical Information List), Photopolymerization initiator (source: GHS Hazardous Chemical Information List) |

| | |
|---|---|
| | No data:Confidential (source: None) |
| | Calculation result = 4887.6889849mg/kg. Classification result = Classification not possible. |
| Acute toxicity (Dermal) | Not classified:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE)<br>Classification not possible:Other (source: Registered substances (ECHA)), aromatic monomer (source: GHS Hazardous Chemical Information List), Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data:Confidential (source: None) |
| | Contains substance of unknown toxicity. Changed from Not classified to Classification not possible. |
| 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:Aliphatic monomer (source: Registered substances (ECHA)), aromatic monomer (source: Registered substances (ECHA))<br>Not classified:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE)<br>Classification not possible:Other (source: Registered substances (ECHA)), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data:Confidential (source: None) |
| | Sum of Category 2 Concentration limit = 10%. Classification result = Category 2. |
| Serious eye damage/ irritation | Category 1:Other (source: Registered substances (ECHA))<br>Category 2:Aliphatic monomer (source: Registered substances (ECHA))<br>Category 2B:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE)<br>Classification not possible:aromatic monomer (source: GHS Hazardous Chemical Information List), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data: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:Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: GHS Hazardous |

| | |
|---|---|
| | Chemical Information List)<br>Category 1B:aromatic monomer (source: Registered substances (ECHA))<br>Classification not possible:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE), Other (source: Registered substances (ECHA))<br>No data:Confidential (source: None) |
| | aromatic monomer >= 1% Classification result = Category 1 |
| Germ cell mutagenicity | Unable to classify due to insufficient data. |
| Carcinogenicity | Unable to classify due to insufficient data. |
| Reproductive toxicity | Category 2:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE)<br>Classification not possible:Other (source: Registered substances (ECHA)), aromatic monomer (source: GHS Hazardous Chemical Information List), Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data: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. |
| | Ingredients not contributing to classification:<br>2,6-Di-tert-butyl-p-cresol (BHT) (category = Category 2, source: NITE) |
| Reproductive toxicity, effects on or via lactation | Unable to classify due to insufficient data. |
| Specific target organ toxicity - Single exposure | Category 1:2,6-Di-tert-butyl-p-cresol (BHT) (organ = nervous system, source: NITE)<br>Category 3:Aliphatic monomer (organ = respiratory tract irritation, source: Registered substances (ECHA))<br>Classification not possible:Other (source: Registered substances (ECHA)), aromatic monomer (source: GHS Hazardous Chemical Information List), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data:Confidential (source: None) |
| | Sum of Category 3(respiratory tract irritation) Concentration limit = 20%. Classification result = Category 3(respiratory tract irritation). |
| Specific target organ toxicity - Repeated exposure | Category 2:2,6-Di-tert-butyl-p-cresol (BHT) (organ = liver、lung, source: NITE), Other (organ = spleen、liver, source: Registered substances (ECHA)) |

| | |
|---|---|
| | Classification not possible:aromatic monomer (source: GHS Hazardous Chemical Information List), Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data:Confidential (source: None)<br><br>Substances classified as hazardous are below the concentration limit. Contains substance of unknown toxicity. Changed from Not classified to Classification not possible. |
| Aspiration hazard | Unable to classify due to insufficient data. |

## Section 12 – Ecological Information

| | |
|---|---|
| Hazardous to the Aquatic Environment – Acute Toxicity | Category 1:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE), Aliphatic monomer (source: Registered substances (ECHA))<br>Category 2:aromatic monomer (source: GHS Hazardous Chemical Information List)<br>Classification not possible:Other (source: Registered substances (ECHA)), Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>No data:Confidential (source: None)<br><br>Category 1 x M factor >= concentration limit(25%). Classification result = Category 1. |
| Hazardous to the Aquatic Environment – Chronic Toxicity | Category 1:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE), Aliphatic monomer (source: Registered substances (ECHA))<br>Category 2:aromatic monomer (source: Registered substances (ECHA))<br>Category 4:Photopolymerization initiator (source: GHS Hazardous Chemical Information List)<br>Classification not possible:Other (source: Registered substances (ECHA))<br>No data:Confidential (source: None)<br><br>Category 1 x M factor >= concentration limit(25%). Classification result = Category 1. |
| Hazardous to the Ozone layer | Unable to classify due to insufficient data. |

## Section 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.<br>In case of disposal of empty containers, remove the content thoroughly. |

## Section 14 - Transport Information

International regulations

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 |

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 |

ADG

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

*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.

## Section 15 - Regulatory Information

No main regulation

Component Analysis - Inventory

2,6-Di-tert-butyl-p-cresol (BHT) (128-37-0)

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

## Section 16 - Other information

| | |
|---|---|
| Literature References | NITE GHS<br>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.