1. IDENTIFICATION

Product Identifier	IJ Primer PR-200
Product code	PR200-Z-22/PR200-Z-60/PR200-Z-BA/PR200-Z-B2
Ink Ver.	3, 4
Recommended use and restriction use	IJ Ink Primer of UV Cure ink
Manufacturer	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. 31 Kaki Bukit Road 3 Singapore 417818 TechLink #02-03 +65-6508-2789
Emergency telephone number	+65 3165 2217 (within Singapore only) +65 3158 1074

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Health hazards	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)
Environmental Hazards	Hazard to the aquatic environment (acute hazard) Category 1 Hazard to the aquatic environment (long-term hazard) Category 1

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 H335 May cause respiratory irritation 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) Avoid release to the environment(P273) Wear protective gloves, eye protection and face protection.(P280)

Response	IF ON SKIN: Wash with plenty of soap and water(P302+P352) IF INHALED: Remove person to fresh air and keep comfortable for breathing.(P304+P340) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing(P305+P351+P338) Call a POISON CENTER/doctor. If you feel unwell.(P312) 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)
Storage	Store in a well-ventilated place. Keep container tightly closed.(P403+P233) Store locked up(P405)
Disposal	Dispose of contents/ container to an approved landfill.(P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances or mixtures: Mixtures

Chemical 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

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. 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. IF SWALLOWED: Call a doctor if you feel unwell.

5. FIRE-FIGHTING MEASURES

Suitable fire-extinguishing media	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 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. Large spills :Evacuate area. 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 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. Risk of slipping. Spilled material forms slippery floor. 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. 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

	ACGIH (TLV)	OSHA (PEL)	Workplace Safety And Health (General Provisions) Regulations
2,6-Di-tert-butyl-p-cresol (BHT)	TWA 2 mg/m3(IFV),STEL -	Not established	10 mg/m3 PEL

Engineering measures	Use local exhaust ventilation in case of production of fume or mist. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use explosion-proof electrical equipment and prevent from static electricity.
Individual protection measures	
Respiratory protection	If necessary, wear respiratory protection.
Hand protection	If necessary,wear protective gloves.
Eye protection	If necessary,wear protective eye protection.
Skin and body protection	If necessary,wear protective clothing.

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	No data available
Boiling point	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(ies)	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

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.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (Oral)	Category 4:Other (converted value = 500mg/kg, source: Registered substances (ECHA)) Not classified:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE), Aliphatic monomer (toxicity value = 5000mg/kg, source: Registered substances (ECHA)) Classification not possible:aromatic monomer (source: 1272/2008/EC), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (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) Classification not possible:Other (source: Registered substances (ECHA)), aromatic monomer (source: 1272/2008/EC), Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (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:aromatic monomer (source: 1272/2008/EC), Aliphatic monomer (source: Registered substances (ECHA)) Not classified:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE) Classification not possible:Other (source: Registered substances (ECHA)), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (source: None)
	Sum of Category 2 Concentration limit = 10%. Classification result = Category 2.
Serious eye damage/ irritation	Category 1:Other (source: Registered substances (ECHA)) Category 2:aromatic monomer (source: 1272/2008/EC), Aliphatic monomer (source: Registered substances (ECHA)) Category 2B:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE) Classification not possible:Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (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: 1272/2008/EC) Category 1B:aromatic monomer (source: Registered substances (ECHA)) Classification not possible:2,6-Di-tert-butyl-p-cresol (BHT) (source: NITE), Other (source: Registered substances (ECHA)) No data:Polyester Oligomer (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) Classification not possible:Other (source: Registered substances (ECHA)), aromatic monomer (source: 1272/2008/EC), Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (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: 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) Category 3:aromatic monomer (organ = respiratory tract irritation, source: 1272/2008/EC), Aliphatic monomer (organ = respiratory tract irritation, source: Registered substances (ECHA)) Classification not possible:Other (source: Registered substances (ECHA)), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (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: 1272/2008/EC), Aliphatic monomer (source: Registered substances (ECHA)), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (source: None) 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.

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)) Classification not possible:Other (source: Registered substances (ECHA)), aromatic monomer (source: 1272/2008/EC), Photopolymerization initiator (source: 1272/2008/EC) No data:Polyester Oligomer (source: None) 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)) Category 2:aromatic monomer (source: Registered substances (ECHA)) Category 4:Photopolymerization initiator (source: 1272/2008/EC) Classification not possible:Other (source: Registered substances (ECHA)) No data:Polyester Oligomer (source: None) Category 1 x M factor >= concentration limit(25%). Classification result = Category 1.
Hazardous to the Ozone layer	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

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

Workplace Safety And Health — Occupational Exposure Limits

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

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.