

Safety Data Sheet (SDS)

Preparation Date 2011/08/05

Revision Date 2014/01/17

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier OPF6-X
 Product Code OPF6X00001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 048-928-6668
 Recommended Use ink
 and Restriction on Use

MMP20-X, MSP20-X, MWP30-X, MMP5-X, MSP5-X

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Physicochemical Hazards Flammable liquids Category 2
 Health Hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure) Category 3(narcotic effect,respiratory tract irritation)
 Specific target organ toxicity (repeated exposure) Category 1(liver)
 Environmental Hazards Hazard to the aquatic environment (acute hazard) Category 1
 Hazard to the aquatic environment (long-term hazard) Category 2
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Danger
 Hazard Statements H315+H320 Causes skin and eye irritation
 H225 Highly flammable liquid and vapour
 H400 Very toxic to aquatic life
 H335 May cause respiratory irritation
 H336 May cause drowsiness and dizziness
 H372 Causes damage to liver through prolonged or repeated exposure
 H411 Toxic to aquatic life with long lasting effects
 Precautionary Statements
 Prevention Keep container tightly closed.(P233)
 Precautionary Statements

	Avoid breathing gas.(P261) Avoid breathing mist, vapours and spray.(P261) Avoid breathing dust and fume.(P261) Use only non-sparking tools.(P242) Wash hand thoroughly after handling.(P264) Do not eat, drink or smoke when using this product.(P270) Use only outdoors or in a well-ventilated area.(P271) Avoid release to the environment.(P273) Wear protective gloves.(P280) Wear eye protection and face protection.(P280) Use personal protective equipment as required.(P281)
Response Precautionary Statements	IF INHALED: Remove to fresh air and keep at rest in a position 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) Get medical advice and attention if you feel unwell.(P314) If skin irritation or rash occurs, get medical advice and attention.(P333+P313) If eye irritation persists: Get medical advice and attention.(P337+P313)
Storage Precautionary Statements	Store in a well-ventilated place keeping container tightly closed.(P403+P233)
Disposal Precautionary Statements	Store locked up.(P405) Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance or Mixture
mixture

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	ENCS No./ISHL No.		CAS RN
			ENCS No.	ISHL No.	
Propyleneglycol monomethylether acetate	25%		(2)-3144	Existing	108-65-6
Heptane	13%	CH3(CH2)5CH3	(2)-7	Existing	142-82-5
Methylcyclohexane	14%	C7H14	(3)-2230	Existing	108-87-2
Copper	25.5%	Cu	Unknown	Unknown	7440-50-8

Impurities and/or Stabilizing Additives which Contribute to the
No information available

Section 4 – FIRST AID MEASURES

Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical advice and attention if you feel unwell.
Skin Contact	Take off or dispose of all polluted clothes. Wash with plenty of soap and water.

Immediately rinse skin with water.
 If skin irritation or rash occurs, get medical advice and attention.
 Get medical advice and attention if you feel unwell.

Eye Contact

Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Call a doctor if you feel unwell.
 When the ocular stimulation lasts, Seek medical treatment and advice.

Ingestion

Rinse mouth. Do NOT induce vomiting.
 Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media
 Unsuitable Extinguishing Media
 Protection of Fire Figther

Dry chemicals, CO2, water spray or regular foam.
 Straight streams.

In fire fighting, wear respiratory protection and chemical protective clothing.

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions,
 Protective Equipment and
 Emergency Procedures

Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.

Environmental

Do not release into the environment.
 Pay attention not to cause the influence on the environment by discharging into rivers.
 This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
 Stop leak if you can do it without risk.

Methods and Equipment
 for Containment and
 Cleaning up

Allow material to solidify, and scrape up.
 After removal, flush contaminated area thoroughly with water.

Absorb or cover with dry earth, sand or other non-combustible material and transfer to Vacuum or sweep up material and place in a disposal container.

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
 Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.

Prevention Measures for
 Secondary Accidents

Prevent flowing into drain, sewage, basement, and closed area.
 Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
 Handling

Do not eat, drink or smoke when using this product.

		Wash hand thoroughly after handling. Do not breathe mist, vapours and spray. Use exhaust ventilation. Handle at a well-ventilated place. Protect from high temperature and direct sunlight.
	Prevents Handling of Incompatible Substances or Mixtures	Refer to "Section 10 – STABILITY AND REACTIVITY".
	Specific Hygiene Measures	Wash hand thoroughly after handling.
Storage Precautionary Statements	Technical Measures	The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods. Refer to "Section 10 – STABILITY AND REACTIVITY". Have containers keep away from direct sunlight and heat. Store in a well-ventilated and cool place keeping container tightly closed. Keep away from heat.
	Material Used in Packaging/Container	Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations".

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls		Take precautionary measures against static discharge. Use explosion-proof electrical, ventilating and lighting equipment. Install ventilation system to keep exposure to airborne contaminants below the exposure limit if vapor, fume, mist generates in the process handling at elevated temperature. Install ventilation system to keep exposure to airborne contaminants below the exposure limit if gas generates in the process handling at elevated temperature. Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this product should be equipped with an eyewash facility and safety shower.
Personal Protective Equipment	Respiratory Protection Hand Protection Eye Protection Skin and Body Protection	Wear an adequate protective apparatus for respiratory organs. Use personal gloves as required. Wear eye protection. Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles). Wear face protection.
		Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid
	Colour	gold
Odour		aromatic
Odour threshold		No data available

pH	No data available
Melting Point/Freezing Point	No data available
Initial Boiling Point and Boiling Ranges	No data available
Flash Point	-10.5°C (Tag Closed Cup)
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Flammability or Explosive Limits	No data available
	Lower Limit
	Upper Limit
Vapour Pressure	No data available
Vapour Density	No data available
Specific Gravity (Density)	No data available
Partition Coefficient : n-Octanol/Water	No data available
Auto-Ignition	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Kinematic viscosity	No data available
Flammability or Explosive Limits	No data available
Section 10 – STABILITY AND REACTIVITY	
Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available
Section 11 – TOXICOLOGICAL INFORMATION	
Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available
Section 12 – ECOLOGICAL INFORMATION	
Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste

Disposal should be in accordance with applicable regulations and standards by the respective local governments.

Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.

When commissioning the disposal to a disposal company, notify the danger and toxicity thoroughly to the company.

Do not release waste liquid containing the product and used water for cleansing into rivers, etc., or do not discharge the concerned wastes intact for reclamation.

Contaminated Container and Packaging

Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.

In case of disposal of empty containers, remove the content thoroughly.

Section 14 – TRANSPORT INFORMATION

International Regulations

Regulatory Information by Sea

Conform to the provisions of IMO.

UN No. 1263

Proper Shipping Class PAINT

Class 3

Packing Group II

Marine Pollutant Not applicable

Transport in bulk Not applicable

according to

MARPOL

73/78,Annex II ,and the IBC code

Regulatory

Conform to the provisions of ICAO/IATA.

Information by Air

UN No. 1263

Proper Shipping Class PAINT

Class 3

Packing Group II

Regulations in Japan

Regulatory Information by Road or Rail Not applicable

Regulatory Information by Sea

Conform to the provisions of the Ship Safety Law.

UN No.

1263

Proper Shipping Name. PAINT

Class 3

Packing Group II

Marine Pollutant Not applicable

Transport in bulk Not applicable

according to

MARPOL

73/78,Annex II ,and the IBC code

Regulatory

Conform to the provisions of the Ship Safety Law.

Information by Air

UN No. 1263

	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
Emergency Response Guide Number		Not applicable

Section 15 – REGULATORY INFORMATION

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

Section 16 – OTHER INFORMATION

Information Contact
Other Property

No information available
This information is furnished without warranty express or implied.
This information is believed to be accurate to the best knowledge of PENTEL Co., Ltd. but not assumes legal responsibility for use of or reliance upon this information.

Safety Data Sheet (SDS)

Preparation Date 2011/08/05

Revision Date 2014/01/17

Section 1 – CHEMICALS AND COMPANY IDENTIFICATION

Chemical Identifier OPF6-Z
 Product Code OPF6Z00001
 Company Name PENTEL CO., LTD.
 Address 7-2,KOAMICHO,NIHONBASHI,CHUO-KU,TOKYO
 Company Contact QUALITY ASSURANCE DEPARTMENT I
 Phone Number 048-928-6668
 Fax Number 048-928-9190
 Mail Address hinpo@pentel.co.jp
 Emergency Phone Number 048-928-6668
 Recommended Use ink
 and Restriction on Use

MSP20-Z,MMP20-Z,MWP30-Z,MMP5-Z,MSP5-Z

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Physicochemical Hazards Flammable liquids Category 2
 Health Hazards Acute toxicity – oral Category 4
 Acute toxicity – inhalation (vapour) Category 2
 Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2B
 Specific target organ toxicity (single exposure) Category 3(narcotic effect)
 Specific target organ toxicity (repeated exposure) Category 1(lung)
 Environmental Hazards Hazard to the aquatic environment (acute hazard) Category 1
 Hazard to the aquatic environment (long-term hazard) Category 2
 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Danger
 Hazard Statements H315+H320 Causes skin and eye irritation
 H225 Highly flammable liquid and vapour
 H400 Very toxic to aquatic life
 H302 Harmful if swallowed
 H330 Fatal if inhaled
 H336 May cause drowsiness and dizziness
 H372 Causes damage to lung through prolonged or repeated exposure
 H411 Toxic to aquatic life with long lasting effects
 Precautionary Statements

Section 4 – FIRST AID MEASURES

Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical advice and attention if you feel unwell.
Skin Contact	Take off or dispose of all polluted clothes. Immediately rinse skin with water. Get medical advice and attention if you feel unwell. Wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice and attention.
Eye Contact	Call a doctor if you feel unwell. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. When the ocular stimulation lasts, Seek medical treatment and advice.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical advice and attention if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media Unsuitable Extinguishing Media Protection of Fire Figther	Dry chemicals, CO2, water spray or regular foam. Straight streams. In fire fighting, wear respiratory protection and chemical protective clothing.
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Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures	Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.
Environmental	Do not release into the environment. Pay attention not to cause the influence on the environment by discharging into rivers. This product is water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Stop leak if you can do it without risk.
Methods and Equipment for Containment and Cleaning up	Small spills; cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Allow material to solidify, and scrape up. After removal, flush contaminated area thoroughly with water. Absorb or cover with dry earth, sand or other non-combustible material and transfer to Vacuum or sweep up material and place in a disposal container. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.

Prevention Measures for
Secondary Accidents

Prevent flowing into drain, sewage, basement, and closed area.
Remove thoroughly since the smooth and slippery surface will be formed on the floor.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product.

Wash hand thoroughly after handling.

Avoid contact with skin.

Do not breathe mist, vapours and spray.

Avoid contact with eyes.

Use exhaust ventilation.

Handle at a well-ventilated place.

Protect from high temperature and direct sunlight.

Prevents Handling of
Incompatible
Substances or
Mixtures

Refer to "Section 10 – STABILITY AND REACTIVITY".

Specific Hygiene
Measures

Wash hand thoroughly after handling.

Storage Precautionary
Statements

Technical Measures

Store in a well-ventilated place keeping container tightly closed.

The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods.

Refer to "Section 10 – STABILITY AND REACTIVITY".

Have containers keep away from direct sunlight and heat.

Store in a well-ventilated and cool place keeping container tightly closed.

Keep away from heat.

Store locked up.

Material Used in
Packaging/Container

Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations".

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Good general ventilation should be sufficient to control airborne levels.

Use explosion-proof electrical, ventilating and lighting equipment.

Take precautionary measures against static discharge.

Install ventilation system to keep exposure to airborne contaminants below the exposure limit if vapor, fume, mist generates in the process handling at elevated temperature.

Install ventilation system to keep exposure to airborne contaminants below the exposure limit if gas generates in the process handling at elevated temperature.

		Facilities storing or utilizing this product should be equipped with an eyewash facility and safety shower.
Personal Protective Equipment	Respiratory Protection	Wear an adequate protective apparatus for respiratory organs.
	Hand Protection	Use personal gloves as required.
	Eye Protection	Wear eye protection. Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).
	Skin and Body Protection	Wear face protection. Use personal protective clothing and face protection as required.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical State	liquid
	Form	liquid
	Colour	silver
Odour		aromatic
Odour threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		-4.5°C (Tag Closed Cup)
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapour Pressure		No data available
Vapour Density		No data available
Specific Gravity (Density)		No data available
Partition Coefficient : n-Octanol/Water		No data available
Auto-Ignition		No data available
Decomposition Temperature		No data available
Viscosity		No data available
Kinematic viscosity		No data available
Flammability or Explosive Limits		No data available

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	No data available
Possibility of Hazardous Reaction	No data available
Conditions to Avoid	No data available
Incompatible Substances or Mixtures	No data available
Hazardous Decomposition Products	No data available

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available
Skin Corrosion/Irritation	No data available
Serious eye damage/eye irritation	No data available

Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration Hazard	No data available

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic environment (acute)	No data available
Hazard to the aquatic environment (long-term hazard)	No data available
Hazard to the ozone layer	No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste	<p>Disposal should be in accordance with applicable regulations and standards by the respective local governments.</p> <p>Commission a waste disposal company, or a local public body who are licensed by local or regional government, to dispose of the material.</p> <p>When commissioning the disposal to a disposal company, notify the danger and toxicity thoroughly to the company.</p> <p>Do not release waste liquid containing the product and used water for cleansing into rivers, etc., or do not discharge the concerned wastes intact for reclamation.</p>
Contaminated Container and Packaging	<p>Recycle containers after cleansing, or carry out the disposal under the related laws and regulations and the standards of the local governments.</p>

Section 14 – TRANSPORT INFORMATION

International Regulations	Regulatory Information by Sea	Conform to the provisions of IMO.
	UN No.	1263
	Proper Shipping Class	PAINT 3
	Packing Group	II
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Conform to the provisions of ICAO/IATA.
	UN No.	1263
	Proper Shipping Class	PAINT 3
	Packing Group	II

Regulations in Japan	Regulatory Information by Road or Rail	Not applicable
	Regulatory Information by Sea	Conform to the provisions of the Ship Safety Law.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
	Marine Pollutant	Not applicable
	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code	Not applicable
	Regulatory Information by Air	Conform to the provisions of the Ship Safety Law.
	UN No.	1263
	Proper Shipping Name.	PAINT
	Class	3
	Packing Group	II
	Emergency Response Guide Number	Not applicable

Section 15 – REGULATORY INFORMATION

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

Section 16 – OTHER INFORMATION

Information Contact
Other Property

No information available

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