



NIPPON MOMENTO *Internal Product*

Product Description:

Nippon Momento lets you recreate intricate works of Italian craftsmanship in your home with its distinctive special effects that turn ordinary walls into extraordinary masterpieces. Formaldehyde-free, Nippon Momento is formulated with low VOC and contains no lead or mercury.

Nippon Momento comes in a selection of top coat finishes:

Momento Elegant: Introduces a luxurious finish to walls for a stylish impression

Momento Sparkle (Pearl, Silver or Gold): Adds a dash of glitz to walls for a finish that sparkles like a gem.

Momento Frost (Snow, Pearl or Gold): Inspired by a crisp winter's day and translated into splendor and sophistication with an added brilliance to walls.

Momento Cloud (Pearl or Gold): A pearl or gold base complements favourite colours to lend a unique yet subtle lustre to living spaces.

Recommended Uses:

For decoration of interior walls, ceilings, cement based plaster, gypsum based plaster, brickwork, hard and soft boards and asbestos.

Composition:

Pigments	:	Mainly Titanium Dioxide, Iron Oxide, Carbon Black and Organic Pigments, Mineral Extender and Special effect pigment
Binder	:	Acrylic Polymer Dispersion
Thinner	:	Water

Properties:

Colour	:	A wide range of colours. Please refer to colour card.
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Momento Elegant & Sparkle Series

Recommended no. of coats	: 2 coats of Primer (based on substrate colour) followed by 1 coat of finishing.
Recommended Dry Film Thickness Per Coat	: Around 30 µm for NP Momento Primer (Actual thickness per coat is based on substrate condition). Finishing coat thickness is around 30 µm (Actual thickness per coat is based on texture required and painter application)
Dilution	: NP Momento Primer - Max 5% dilution recommended Topcoat – no dilution is normally required
Drying Time Touch Dry	: Primer : Minimum 20 minutes at 30°C (Dependent on temperature and humidity) Topcoat : Minimum 30 minutes at 30°C (Dependent on temperature and humidity)
Hard Dry	: Primer : Minimum 1 hours (Dependent on temperature and humidity) Topcoat : Minimum 2 hours at 30°C (Dependent on temperature and humidity)
Recoating Interval for the NP Momento Primer	: 2 hours minimum based on normal condition
Estimated Practical coverage	: NP Momento Primer : 10-12 m ² per litre per coat (30 micron DFT) (Actual coverage is dependent on substrate condition.) * Finishing: 4 - 6 m ² per litre per coat. (Actual coverage is based on texture required and painter application)
Application Methods:	: Brush / Roller / Plastic Spatula NP Momento Primer – Apply by roller Finishing – Apply by brush in irregular ways followed by smoothness the surface by flexible plastic spatula.

Momento Frost & Cloud Series

Recommended no. of coats	: 1 coat
Recommended Dry Film Thickness Per Coat	: Finishing coat thickness is around 30 µm (Actual thickness per coat is based on texture required and painter application)
Dilution	: NIL
Drying Time Touch Dry	: Minimum 30 minutes at 30°C (Dependent on temperature and humidity)
Hard Dry	: Minimum 2 hours at 30°C

	(Dependent on temperature and humidity)
Estimated Practical coverage	: 7 - 8 m ² per litre per coat. (Actual coverage is based on texture required and painter application)
Application Methods	: Momento Frost Series : Brush Apply by brush in a 45 degree angle in one direction on existing coating. Momento Cloud Series : Brush / Sponge Apply by brush / sponge in irregular criss cross strokes on existing coating.

Clean Up	: Clean up equipment with water immediately after use.
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Surface Preparation:

Remove all loose, defective paint or powdery residues. Repair cracks, uneven surfaces with suitable putty or fillers. Smoothen the putty / filler areas with sandpaper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls is still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the wall to be below pH9.)

Previously Painted Surfaces

Remove all unstable paint film, loose chalk, dust and foreign matter. Make good any surface defects, clean off and dry.

<u>Recommended Paint System</u>		
<u>Type of Substrate:</u>		
FOR INTERIOR MASONRY		
Nippon Momento Elegant & Sparkle Series		
Sequence	Product Name	No. of Coats
Sealer / Primer	Nippon Momento Primer	2
Finish	Nippon Momento Elegant Nippon Momento Sparkle Pearl Nippon Momento Sparkle Silver Nippon Momento Sparkle Gold	1

Nippon Momento Frost & Cloud Series		
Sequence	Product Name	No. of Coats
Finish	Nippon Momento Snow Frost Nippon Momento Pearl Frost Nippon Momento Gold Frost Nippon Momento Cloud Gold Nippon Momento Cloud Pearl	1

Standard Packing	: 1 and 5 litres
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Safety, Health and Environmental Information:

Keep container tightly closed and keep out of reach of children or away from food and drink. Ensure good ventilation during application and drying. When applying paint, it is advisable to wear eye protection. In case of contact with eye, rinse with plenty of water immediately and seek medical advice. Remove splashes from skin by using soap or water. Paint must always be stored in a cool place. When transporting paint, care must be taken. Always keep container in a secure upright position. Dispose off any paint waste in accordance with the appropriate Environmental Quality Regulations.

Note:
* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{\text{Volume Solid \% x 10}}{\text{Dry Film Thickness}} \right] = \text{m}^2 / \text{lit} / \text{coat}$$

The dry paint film thickness and actual coverage does not consider LOSS FACTORS. Variables like porosity of substrate, application method, dilution ratio, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given data without prior notice.



NIPPON MOMENTO DESIGNER SERIES

OPTICAL

INTERNAL PAINT

Product Description:

Nippon Momento Designer Series (Optical) offers silver shimmers of colours which possess remarkable metallic effects with low odour. Formaldehyde-free, Nippon Momento Designer Series is formulated with low VOC and contains no lead or mercury.

Product Features:

- Stylish works of Italian craftsmanship
- Silver touch of aluminium effects
- Hides unevenness of the wall surface
- Low odour, environmental friendly
- Provide outstanding metallic effect
- For interior use

Recommended Uses:

For decoration of interior walls, ceilings, cement based plaster, gypsum based plaster, brickwork, hard and soft boards and asbestos.

Application Procedure:

Apply 2 coats of NIPPON VINILEX 5200 WALL SEALER. Then, apply the first coat of NIPPON MOMENTO OPTICAL with roller. Use brush to make irregular patterns and twirls before it dries. After approx. 1-2 hours, apply second coat with the same methods again. After the product dries, apply 1 coat of NIPPON MOMENTO CLEAR COAT for better protection.

Composition:

Pigments	: Organic Pigments, Mineral Extender and Special effect pigment
Binder	: Acrylic Polymer Dispersion
Thinner	: Water

Properties:

Colour	: A wide range of colours. Please refer to colour card.
Appearance	: Metallic Effects
Specific Gravity	: 1.01

Recommended no. of coats	: 2 coats
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Drying Time	: Minimum 1-2 hours (Dependent on temperature and humidity)
Touch Dry	
Hard Dry	: Minimum 2 - 4 hours (Dependent on temperature and humidity)
Recoating Interval	: Minimum 2-4 hours (Dependent on temperature and humidity)
Theoretical Coverage	: 4-6m ² per litre per coat (Actual coverage is dependent on substrate condition, application method, application condition and finishing appearance) <i>It is recommended to go for actual application to estimate the practical coverage for project.</i>

<u>Application Methods:</u>	
1) Application	: Roller and brush
2) Dilution	: This paint is ready for use after thorough stirring. Maximum 5% dilution is allowed when needed.
Clean Up	: Clean up equipment with water immediately after use.

<u>Surface Preparation:</u>	
<p>Remove all loose, defective paint or powdery residues. Repair cracks, uneven surfaces with Nippon ACS Putty or suitable fillers. Smoothen the putty / filler areas with sandpaper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the walls to be below pH9.)</p> <p>Nippon Vinilex 5200 Wall Sealer must be painted prior to the painting of Nippon Momento Designer Series (Optical). Ensure that the Sealer is allowed to dry for at least 2 hours and free of contaminants before the application of Nippon Momento Designer Series (Optical).</p>	

Recommended Paint System

Type of Substrate: FOR MASONRY SUBSTRATE

Sequence	Product Name	No. of Coats
Sealer	NIPPON VINILEX 5200 WALL SEALER	1
Top Finishing	NIPPON MOMENTO DESIGNER SERIES OPTICAL	2
Clear Coat	NIPPON MOMENTO CLEAR COAT	1

Standard Packing : 1 and 5 litres

Safety, Health and Environmental Information:

Keep container tightly closed and keep out of reach of children or away from food and drink.
Ensure good ventilation during application and drying.
When applying paint, it is advisable to wear eye protection.
In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
Remove splashes from skin by using soap or water.
Paint must always be stored in a cool place.
When transporting paint, care must be taken. Always keep container in a secure upright position.
Dispose off any paint waste in accordance with the appropriate Environmental Quality Regulations.

Note:

* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{\text{Volume Solid \%} \times 10}{\text{Dry Film Thickness}} \right] = \text{m}^2 / \text{lit} / \text{coat}$$

and does not consider LOSS FACTORS.

Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

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NIPPON MOMENTO DESIGNER SERIES

RUSTBOX

INTERNAL PAINT

Product Description:

Nippon Momento Designer Series (Rustbox) offers rustic and vintage touch of shimmers with perfect blend-in of matching colours that gives an authentic textured masterpiece. Formaldehyde-free, Nippon Momento Designer Series is formulated with low VOC and contains no lead or mercury.

Product Features:

- Stylish works of Italian craftsmanship
- Rustic and nostalgic textured finish
- Hides unevenness of the wall surface
- Low odour, environmental friendly
- For interior use

Recommended Uses:

For decoration of interior walls, ceilings, cement based plaster, gypsum based plaster, brickwork, hard and soft boards and asbestos.

Application Procedure:

NIPPON VINILEX HI-BOND WALL SEALER/NIPPON VINILEX ECO-BOND WALL SEALER is recommended for better adhesion on powdery skim-coated surfaces. Then, apply 2 coats of NIPPON MOMENTO PRIMER using roller/brush. Apply 2 coats of NIPPON MOMENTO RUSTBOX with brush with soft bristles at approx. 30µm thickness sideways in one direction, with interval 1-2 hours in between the coats. Once the product is dried (1-2 hours), the top finishing can be coloured by NIPPON MOMENTO CLOUD GOLD using brush and make sure that the product blends well into the lines. Finish with 1 coat of NIPPON MOMENTO CLEAR COAT using roller/brush for better protection.

Composition:

Pigments	: Organic Pigments, Mineral Extender and Special effect pigment
Binder	: Acrylic Polymer Dispersion
Thinner	: NA

Properties:

Colour	: A wide range of colours. Please refer to colour card.
Appearance	: Textured Finish and rustic effects
Specific Gravity	: 1.01

Recommended no. of coats	: 2 coats of Primer, 2 coats of RUSTBOX base, 1 coat of CLOUD GOLD followed by 1 coat of CLEAR COAT.
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Drying Time	
Touch Dry	: Primer : Minimum 20 minutes at 30°C (Dependent on temperature and humidity) Rustbox : Minimum 1 hour at 30°C (Dependent on temperature and humidity)
Hard Dry	: Primer : Minimum 1 hours (Dependent on temperature and humidity) Rustbox : Minimum 2 hours at 30°C (Dependent on temperature and humidity)Minimum
Recoating Interval	: 1-2 hours (Dependent on temperature and humidity)
Theoretical Coverage	: 4-6m ² per litre per coat (Actual coverage is dependent on substrate condition, application method, application condition and finishing appearance) <i>It is recommended to go for actual application to estimate the practical coverage for project.</i>

<u>Application Methods:</u>	
1) Application	: Brush
2) Dilution	: NP Momento Primer - Max 5% dilution recommended Rustbox-No dilution is needed.
Clean Up	: Clean up equipment with water immediately after use.

<u>Surface Preparation:</u>	
<p>Remove all loose, defective paint or powdery residues. Repair cracks, uneven surfaces with Nippon ACS Putty or suitable fillers. Smoothen the putty / filler areas with sandpaper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the walls to be below pH9.)</p> <p>Nippon Vinilex Hi-Bond Wall Sealer/Nippon Vinilex Eco-Bond Wall Sealer is recommended to enhance adhesion on powdery skim-coated surface prior Nippon Momento Primer. Ensure that the Sealer is allowed to dry for at least 2 hours and free of contaminants before the application of Nippon Momento Primer.</p>	

Recommended Paint System

Type of Substrate: FOR MASONRY SUBSTRATE

Sequence	Product Name	No. of Coats
Primer	NIPPON MOMENTO PRIMER	1
Rustbox	NIPPON MOMENTO DESIGNER SERIES RUSTBOX	2
Top Finishing	NIPPON MOMENTO CLOUD GOLD	1
Clear Coat	NIPPON MOMENTO CLEAR COAT	1

Standard Packing : 1 and 5 litres

Safety, Health and Environmental Information:

Keep container tightly closed and keep out of reach of children or away from food and drink.
Ensure good ventilation during application and drying.
When applying paint, it is advisable to wear eye protection.
In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
Remove splashes from skin by using soap or water.
Paint must always be stored in a cool place.
When transporting paint, care must be taken. Always keep container in a secure upright position.
Dispose off any paint waste in accordance with the appropriate Environmental Quality Regulations.

Note:

* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{\text{Volume Solid \%} \times 10}{\text{Dry Film Thickness}} \right] = \text{m}^2 / \text{lit} / \text{coat}$$

and does not consider LOSS FACTORS.

Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

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NIPPON MOMENTO TRAVERTINO

INTERNAL PAINT

Product Description:

Nippon Momento Travertino is an inorganic mineral coating with non-added lead and mercury. It is specially formulated as a textured intermediate coat to provide 3D textured finish or pattern for internal wall surfaces.

Product Features:

- Excellent durability even under tropical conditions
- Resistance to fungus and algae
- Covers hairline cracks
- Hides unevenness of the wall surface
- Low odour, environmental friendly
- Provide outstanding travertine marble effect
- For interior use

Recommended Uses:

It is suitable for decoration and protection of various interior concrete surfaces, such as cement and plastered walls. Ideal to use on interior walls of all types of architectural buildings such as residential, hotel, schools, and offices. Natural stone/brick effects can be obtained.

Application Procedure:

Apply the first coat of NIPPON MOMENTO TRAVERTINO with a stainless steel trowel at approx. 1 mm thickness. After approx. 4 hours, apply a second coat with the same method and same thickness. Wait 20-30 minutes to allow for the passivation of the product, then proceed by using the hard-bristled spatula to create the irregular veins of Travertine stone. Afterwards, continue with smoothing the product, to compact any ripples, by using the stainless steel trowel. If an imitation of the effect of brick lines is desired, after the smoothing procedure, score a line/pattern with a sharp metal tip (e.g. a screwdriver) according to a design at the discretion of the applicator. Once the product is dried (10-12 hours), the top finishing can be transparent or coloured by using NIPPON MOMENTO SPARKLE GOLD / NIPPON MOMENTO SPARKLE SILVER / NIPPON FIBERCOTE (diluted 50%) / NIPPON MOMENTO CLOUD GOLD / NIPPON MOMENTO CLOUD PEARL, and make sure that the product penetrates well into the lines and on the veined effects. Kindly use sponge for application of NIPPON FIBERCOTE and brush for application of NIPPON MOMENTO. "Light and shade" effect is obtained and the lines and veins are highlighted.

Composition:

Pigments	:	Silica Sand, Acrylic emulsion and Inorganic Mineral Extender
Thinner	:	Water

Properties:	
Colour	: White
Appearance	: Texture finish
Solid content	: 76.4%
Specific Gravity	: 1.70 – 1.76
Recommended no. of coats	: 2-3 coats
Drying Time	
Touch Dry	: 1 - 2 hours (Based on applied thickness and ambience temperature)
Hard Dry	: 3 hours
Recoating Interval	: Minimum 2 - 4 hours
Theoretical Coverage	: 1kg per m ² per coat (Actual coverage is dependent on substrate condition, application method, application condition and finishing appearance) <i>It is recommended to go for actual application to estimate the practical coverage for project.</i>

Application Methods:	
1) Application by Trowel and scrapper Any other relevant tools(e.g. screwdriver and hard-bristled spatula) can be used for creating brick lines and veined effects (if necessary)	: This paint is ready for use after thorough stirring. If necessary, a maximum of 3% water may be added.
Clean Up	: Clean up equipment with water immediately after use.

Surface Preparation:	
Remove all loose, defective paint or powdery residues. Repair cracks, uneven surfaces with Nippon ACS Putty or suitable fillers. Smoothen the putty / filler areas with sandpaper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the walls to be below pH9.)	
Nippon Vinilex 5200 Wall Sealer / Nippon Vinilex 5500 Wall Sealer must be painted prior to the painting of Nippon Momento Travertino. Ensure that the Sealer is allowed to dry for at least 2 hours and free of contaminants before the application of Nippon Momento Travertino.	

Recommended Paint System**Type of Substrate:** FOR MASONRY SUBSTRATE

Sequence	Product Name	No. of Coats
Sealer	NIPPON VINILEX 5200 WALL SEALER / NIPPON VINILEX 5500 WALL SEALER	1
Textured Intermediate Coat	NIPPON MOMENTO TRAVERTINO	2
Top Finishing	NIPPON MOMENTO SPARKLE GOLD/NIPPON MOMENTO SPARKLE SILVER/NIPPON FIBERCOTE/NIPPON MOMENTO CLOUD GOLD/ NIPPON MOMENTO CLOUD PEARL * Use brush for Nippon Momento, Use sponge for Nippon Fibercote	1

Standard Packing : 25kg**Safety, Health and Environmental Information:**

Keep container tightly closed and keep out of reach of children or away from food and drink.
Ensure good ventilation during application and drying.
When applying paint, it is advisable to wear eye protection.
In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
Remove splashes from skin by using soap or water.
Paint must always be stored in a cool place.
When transporting paint, care must be taken. Always keep container in a secure upright position.
Dispose off any paint waste in accordance with the appropriate Environmental Quality Regulations.

Note:

* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{\text{Volume Solid \% x 10}}{\text{Dry Film Thickness}} \right] = \text{m}^2 / \text{lit} / \text{coat}$$

and does not consider LOSS FACTORS.

Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

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NIPPON MOMENTO DESIGNER SERIES

VELVET SERIES

INTERNAL PAINT

Product Description:

Nippon Momento Designer Series (Velvet Pearl/Gold/Metallic) offers personalized and distinctive blended of colours which possess the smoothness of woven velvet that patch ordinary walls into enticing artwork. Formaldehyde-free, Nippon Momento Designer Series is formulated with low VOC and contains no lead or mercury.

Product Features:

- Stylish works of Italian craftsmanship
- Distinctive silky smoothness of pearlescent/gold/metallic shine
- Hides unevenness of the wall surface
- Low odour, environmental friendly
- Provide outstanding silky finish
- For interior use

Recommended Uses:

For decoration of interior walls, ceilings, cement based plaster, gypsum based plaster, brickwork, hard and soft boards and asbestos.

Application Procedure:

Apply 2 coats of NIPPON VINILEX EASYWASH prior painting. Then, apply the first coat of NIPPON MOMENTO VELVET SERIES with a smooth scrapper at approx. 0.1 mm thickness. After approx. 2-4 hours, apply second and third coats with the same method and same thickness, with intervals in between the coats. Finish with 1 coat of NIPPON MOMENTO CLEAR COAT using brush/roller for better protection.

Composition:

Pigments	: Organic Pigments, Mineral Extender and Special effect pigment
Binder	: Acrylic Polymer Dispersion
Thinner	: NA

Properties:

Colour	: A wide range of colours. Please refer to colour card.
Appearance	: Smooth Velvet Finish
Specific Gravity	: 1.01

Recommended no. of coats	: 3-4 coats
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Drying Time	
Touch Dry	: Minimum 1-2 hours (Dependent on temperature and humidity)
Hard Dry	: Minimum 2 - 4 hours (Dependent on temperature and humidity)
Recoating Interval	: Minimum 2-4 hours (Dependent on temperature and humidity)
Theoretical Coverage	: 4-6m ² per litre per coat (Actual coverage is dependent on substrate condition, application method, application condition and finishing appearance) <i>It is recommended to go for actual application to estimate the practical coverage for project.</i>

<u>Application Methods:</u>	
1) Application	: Smooth Scrapper
2) Dilution	: This paint is ready for use after thorough stirring. No dilution is needed.
Clean Up	: Clean up equipment with water immediately after use.

<u>Surface Preparation:</u>	
<p>Remove all loose, defective paint or powdery residues. Repair cracks, uneven surfaces with Nippon ACS Putty or suitable fillers. Smoothen the putty / filler areas with sandpaper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the walls to be below pH9.)</p> <p>Nippon Vinilex 5200 Wall Sealer must be painted prior to the painting of Nippon Interior Paint Products. Ensure that the Sealer is allowed to dry for at least 2 hours and free of contaminants before the application of Nippon Interior Paint Products.</p>	

<u>Recommended Paint System</u>		
<u>Type of Substrate:</u> FOR MASONRY SUBSTRATE		
Sequence	Product Name	No. of Coats
Sealer	NIPPON VINILEX 5200 WALL SEALER	1
Topcoat	NIPPON INTERIOR PAINT PRODUCTS (NIPPON VINILEX EASYWASH)	2
Top Finishing	NIPPON MOMENTO DESIGNER SERIES VELVET PEARL/GOLD/METALLIC	2-3

Clear Coat	NIPPON MOMENTO CLEAR COAT	1
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Standard Packing : 1 and 5 litres

Safety, Health and Environmental Information:

Keep container tightly closed and keep out of reach of children or away from food and drink.
 Ensure good ventilation during application and drying.
 When applying paint, it is advisable to wear eye protection.
 In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
 Remove splashes from skin by using soap or water.
 Paint must always be stored in a cool place.
 When transporting paint, care must be taken. Always keep container in a secure upright position.
 Dispose off any paint waste in accordance with the appropriate Environmental Quality Regulations.

Note:
 * Theoretical Coverage is based on a mathematical formula

$$\left[\frac{\text{Volume Solid \%} \times 10}{\text{Dry Film Thickness}} \right] = \text{m}^2 / \text{lit} / \text{coat}$$

and does not consider LOSS FACTORS.
 Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

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SAFETY DATA SHEET

SDS Number: SDS-OTH-0021

Version 003

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Name:	NIPPON MOMENTO OPTICAL BASE
Intended Use:	Water-Based Decorative Paint
Distributed by:	Nippon Paint (S) Co. Pte Ltd No. 1 First Lok Yang Road Jurong Singapore 629728
Emergency Phone Number	(65) 6 265 5355
Fax Numbers:	(65) 6 264 1603

2. HAZARD IDENTIFICATION

GHS Classification:

Physical Hazard

Not classified as an physical hazard under GHS criteria

Health Hazard

Not classified as an health hazard under GHS criteria

Environment Hazard

Not classified as an environmental hazard under GHS criteria

GHS Pictogram

None

Signal Word

None

Hazard statements

None

Precautionary statements

None

Response

None

Storage

None

Disposal

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain any substances presenting to physical, health or environmental hazard

4. FIRST-AID MEASURES

INHALATION

- Move person to fresh air and call for medical assistance immediately.
- If not breathing, give artificial respiration, if breathing is difficult, give oxygen. Keep at rest.

SKIN CONTACT

- In case of contact, immediately flush skin with large amounts of water and soap while removing contaminated clothing and shoes.
- If irritation persists, get medical attention.

EYE CONTACT

- Immediately flush eyes with large amounts of water until irritation subsides.
- Remove contact lens
- Obtain medical attention, preferably by an ophthalmologist, immediately.

INGESTION

- DO NOT induce vomiting unless directed to do so by a medical personnel. Never give anything by mouth to an unconscious person. Keep at rest. Get medical attention immediately.

5. FIRE FIGHTING MEASURE

SUITABLE FIRE EXTINGUISHING MEDIA

- Alcohol-resistant foam, Carbon dioxide, or dry chemical type

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

- Combustion products may include and are not limited to: Carbon monoxide and Carbon dioxide.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS

- Wear full protective clothing and NIOSH-approved self-contained breathing apparatus.
- Use water spray to cool fire-exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapours.
- If possible, isolate product from heat, electrical equipments, sparks and open flames.
- Avoid spraying water directly into storage containers.
- Closed containers may explode when exposed to extreme heat.
- Avoid spreading burning liquid with water, isolate liquid.
- Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE

- Wear appropriate protective equipment, e.g. respirators, eye protection, gloves and safety shoes.
- Avoid substance contact with eyes. Do not inhale vapours.
- Ensure supply of fresh air in enclosed rooms.
- Avoid substance contact with eyes. Do not inhale vapours..

ENVIRONMENTAL PRECAUTIONS

- Eliminate sources of ignition.
- Keep public away.
- Contain spilled liquid with sand or other non-combustible absorbent materials
- Wash area and prevent runoff into drains and sewerage system.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.

METHODS AND MATERIALS FOR CONTAINMENTS AND CLEANING UP

- Clean up all spills immediately.
- Absorb spill with absorbent and inert material, then place in container.

- Disposal in accordance to local/national regulations.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Use appropriate personal protective equipment
- Keep out of reach of children.
- Handle containers with care. Open slowly in order to control possible pressure release.
- Do not pressurize containers.
- Do not ingest. Do not breathe in gas/fumes/vapour. Avoid contact with skin and eyes.
- For personal protection, see section 8.
- Use only in areas from which all naked lights and other sources of ignition have been excluded.
- Take precautionary measures against static discharge
- Protect from frost and extremes of temperature.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep containers tightly closed.
- Containers that are opened should be properly resealed and kept upright to prevent leakage.
- Store in cool, dry and well-ventilated place at temperature between 20°C to 40°C away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS/OCCUPATIONAL LIMITS

-No data available

APPROPRIATE ENGINEERING CONTROL MEASURES

- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
- Ensure eyewash stations and safety showers are close to the workstation location.

PERSONAL PROTECTION

Respiratory Protection:	Use of SS548 or NIOSH-approved respirators with organic vapour cartridges is recommended.
Hand Protection:	Use of solvent resistance type or chemical resistant type of protective gloves is recommended.
Eye Protection:	Use of SS473(Part 2) approved safety glasses or goggles with side shields is recommended.
Skin / Body Protection:	Wear chemical resistant clothes and SS 513 (Part 1) approved safety shoes when handling product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Odour	:	Mild paint odour
Odour threshold	:	Not available
pH	:	8-9.5
Melting point/freezing point	:	Not available
Initial boiling point and boiling range	:	Not available
Flash point	:	Not available
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower flammability or explosive limit	:	Not available
Upper flammability or explosive limit	:	Not available
Vapour pressure	:	Not available
Vapour density	:	Not available
Relative density	:	Not available

Solubility	:	Miscible in water
Partition coefficient	:	Not available
Auto-ignition temperature	:	424 °C
Decomposition temperature	:	Not available
Viscosity	:	Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY

- No dangerous reaction known under condition of normal use.

CHEMICAL STABILITY

- The product is stable under recommended storage and handling conditions. (see section 7)

POSSIBILITY OF HAZARDOUS REACTION

- Under normal conditions of storage and use, hazardous reaction will not occur.

CONDITIONS TO AVOID

- Keep away from oxidising agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, drill, grind or expose containers to heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS

- When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself.

Toxicological information of ingredients:

Acute Oral toxicity

Harmful if swallowed.

Acute dermal/skin toxicity

Maybe harmful if in contact with skin

Acute inhalation toxicity

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

Skin corrosion or irritation

Causes skin irritation. Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

Serious eye damage or irritation

May be an eye irritant.

Respiratory or skin sensitisation

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract,

Germ cell mutagenicity

No information available on the product.

Carcinogenicity

No information available on the product.

Reproductive toxicity

No information available on the product.

Specific Target Organ Toxicity (STOT)- single exposure

No information available on the product.

Specific Target Organ Toxicity (STOT)- repeated exposure

No information available on the product.

Aspiration hazard

No information available on the product.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity -No data available

Persistence and degradability

Biodegradation -No data available

Bioaccumulative potential

-No data available

Mobility in soil

-No data available

Result of PBT and vPvB assessment

-No data available

Other adverse effects

There is no ecotoxicological test data available on the product itself.

The product should not be allowed to enter drains or water courses

13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains and watercourses.

Preferred methods of waste disposal are incineration or biological treatment in federal/state approved facility. Empty containers should be recycled or disposed through an approved waste management facility or licensed contractor.

All federal, state and local environmental regulations shall be observed.

14. TRANSPORT INFORMATION

Transport to be in accordance with ADR/RID for road, IMDG for sea and IATA for Air.

LAND TRANSPORT

Not classified as Dangerous Goods by the criteria of the European Agreement concerning the international carriage of Dangerous Goods (ADR) by Road & Regulations concerning the international carriage of Dangerous goods (RID) by Rail.

SEA TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport of Sea.

SEA (Annex II of MARPOL 73/78 and the IBC code)

Not applicable

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by Air

15. REGULATORY INFORMATION

Applicable national regulations:

- Standards on Hazard communication for hazardous chemicals and dangerous goods
 - SS 586 : Part 1: 2014- Transport and storage of dangerous goods
 - SS 586 : Part 2: 2014- GHS of classification and labelling of chemicals- Singapore's adaptations
 - SS 586 : Part 3: 2008- Preparation of safety data sheets (SDS)
- MOM: Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations
 - This product is subject to SDS, labelling, PEL and other requirements in the Acts/Regulations
- NEA: Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations.
 - This product is not subject to control under this Acts/Regulations
- SCDF: Fire Safety Act & Fire Safety (Petroleum and Flammable Materials) Regulations
 - This product is not subject to the requirement of this Acts/Regulations
- SPF: The Arms and Explosive Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules
 - This product is not subject to the requirement of this Acts/Regulations

16. OTHER INFORMATION

Revision date: 30-Nov-2015

Abbreviation

ACGIH American Conference of Governmental Industrial Hygienists

TLV Threshold limit value

TWA Time-Weighted Average

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

LD50 Lethal Dose

LC50 Median lethal concentration

IACR International Agency for Research in Cancer

To the best of our knowledge, the information contained herein is accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness. Since the conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge, for this and other reasons, we make no guarantee of results and assume no liability for damages incurred by the use of this product. Please be reminded that all chemicals may present unknown health hazards and should be used with caution.



SAFETY DATA SHEET

SDS Number: SDS-OTH-0022

Version 003

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Name:	NIPPON MOMENTO RUST BOX BASE
Intended Use:	Water-Based Decorative Paint
Distributed by:	Nippon Paint (S) Co. Pte Ltd No. 1 First Lok Yang Road Jurong Singapore 629728
Emergency Phone Number	(65) 6 265 5355
Fax Numbers:	(65) 6 264 1603

2. HAZARD IDENTIFICATION

GHS Classification:

Physical Hazard

Not classified as an physical hazard under GHS criteria

Health Hazard

Not classified as an health hazard under GHS criteria

Environment Hazard

Not classified as an environmental hazard under GHS criteria

GHS Pictogram

None

Signal Word

None

Hazard statements

None

Precautionary statements

None

Response

None

Storage

None

Disposal

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain any substances presenting to physical, health or environmental hazard

4. FIRST-AID MEASURES

INHALATION

- Move person to fresh air and call for medical assistance immediately.
- If not breathing, give artificial respiration, if breathing is difficult, give oxygen. Keep at rest.

SKIN CONTACT

- In case of contact, immediately flush skin with large amounts of water and soap while removing contaminated clothing and shoes.
- If irritation persists, get medical attention.

EYE CONTACT

- Immediately flush eyes with large amounts of water until irritation subsides.
- Remove contact lens
- Obtain medical attention, preferably by an ophthalmologist, immediately.

INGESTION

- DO NOT induce vomiting unless directed to do so by a medical personnel. Never give anything by mouth to an unconscious person. Keep at rest. Get medical attention immediately.

5. FIRE FIGHTING MEASURE

SUITABLE FIRE EXTINGUISHING MEDIA

- Alcohol-resistant foam, Carbon dioxide, or dry chemical type

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

- Combustion products may include and are not limited to: Carbon monoxide and Carbon dioxide.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS

- Wear full protective clothing and NIOSH-approved self-contained breathing apparatus.
- Use water spray to cool fire-exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapours.
- If possible, isolate product from heat, electrical equipments, sparks and open flames.
- Avoid spraying water directly into storage containers.
- Closed containers may explode when exposed to extreme heat.
- Avoid spreading burning liquid with water, isolate liquid.
- Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE

- Wear appropriate protective equipment, e.g. respirators, eye protection, gloves and safety shoes.
- Avoid substance contact with eyes. Do not inhale vapours.
- Ensure supply of fresh air in enclosed rooms.
- Avoid substance contact with eyes. Do not inhale vapours..

ENVIRONMENTAL PRECAUTIONS

- Eliminate sources of ignition.
- Keep public away.
- Contain spilled liquid with sand or other non-combustible absorbent materials
- Wash area and prevent runoff into drains and sewerage system.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.

METHODS AND MATERIALS FOR CONTAINMENTS AND CLEANING UP

- Clean up all spills immediately.
- Absorb spill with absorbent and inert material, then place in container.

- Disposal in accordance to local/national regulations.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Use appropriate personal protective equipment
- Keep out of reach of children.
- Handle containers with care. Open slowly in order to control possible pressure release.
- Do not pressurize containers.
- Do not ingest. Do not breathe in gas/fumes/vapour. Avoid contact with skin and eyes.
- For personal protection, see section 8.
- Use only in areas from which all naked lights and other sources of ignition have been excluded.
- Take precautionary measures against static discharge
- Protect from frost and extremes of temperature.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep containers tightly closed.
- Containers that are opened should be properly resealed and kept upright to prevent leakage.
- Store in cool, dry and well-ventilated place at temperature between 20°C to 40°C away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS/OCCUPATIONAL LIMITS

-No data available

APPROPRIATE ENGINEERING CONTROL MEASURES

- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
- Ensure eyewash stations and safety showers are close to the workstation location.

PERSONAL PROTECTION

Respiratory Protection:	Use of SS548 or NIOSH-approved respirators with organic vapour cartridges is recommended.
Hand Protection:	Use of solvent resistance type or chemical resistant type of protective gloves is recommended.
Eye Protection:	Use of SS473(Part 2) approved safety glasses or goggles with side shields is recommended.
Skin / Body Protection:	Wear chemical resistant clothes and SS 513 (Part 1) approved safety shoes when handling product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Odour	:	Mild paint odour
Odour threshold	:	Not available
pH	:	8-9.5
Melting point/freezing point	:	Not available
Initial boiling point and boiling range	:	Not available
Flash point	:	Not available
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower flammability or explosive limit	:	Not available
Upper flammability or explosive limit	:	Not available
Vapour pressure	:	Not available
Vapour density	:	Not available
Relative density	:	Not available

Solubility	:	Miscible in water
Partition coefficient	:	Not available
Auto-ignition temperature	:	424 °C
Decomposition temperature	:	Not available
Viscosity	:	Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY

- No dangerous reaction known under condition of normal use.

CHEMICAL STABILITY

- The product is stable under recommended storage and handling conditions. (see section 7)

POSSIBILITY OF HAZARDOUS REACTION

- Under normal conditions of storage and use, hazardous reaction will not occur.

CONDITIONS TO AVOID

- Keep away from oxidising agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, drill, grind or expose containers to heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS

- When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself.

Toxicological information of ingredients:

Acute Oral toxicity

Harmful if swallowed.

Acute dermal/skin toxicity

Maybe harmful if in contact with skin

Acute inhalation toxicity

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

Skin corrosion or irritation

Causes skin irritation. Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

Serious eye damage or irritation

May be an eye irritant.

Respiratory or skin sensitisation

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract,

Germ cell mutagenicity

No information available on the product.

Carcinogenicity

No information available on the product.

Reproductive toxicity

No information available on the product.

Specific Target Organ Toxicity (STOT)- single exposure

No information available on the product.

Specific Target Organ Toxicity (STOT)- repeated exposure

No information available on the product.

Aspiration hazard

No information available on the product.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity -No data available

Persistence and degradability

Biodegradation -No data available

Bioaccumulative potential

-No data available

Mobility in soil

-No data available

Result of PBT and vPvB assessment

-No data available

Other adverse effects

There is no ecotoxicological test data available on the product itself.

The product should not be allowed to enter drains or water courses

13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains and watercourses.

Preferred methods of waste disposal are incineration or biological treatment in federal/state approved facility. Empty containers should be recycled or disposed through an approved waste management facility or licensed contractor.

All federal, state and local environmental regulations shall be observed.

14. TRANSPORT INFORMATION

Transport to be in accordance with ADR/RID for road, IMDG for sea and IATA for Air.

LAND TRANSPORT

Not classified as Dangerous Goods by the criteria of the European Agreement concerning the international carriage of Dangerous Goods (ADR) by Road & Regulations concerning the international carriage of Dangerous goods (RID) by Rail.

SEA TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport of Sea.

SEA (Annex II of MARPOL 73/78 and the IBC code)

Not applicable

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by Air

15. REGULATORY INFORMATION

Applicable national regulations:

- Standards on Hazard communication for hazardous chemicals and dangerous goods
 - SS 586 : Part 1: 2014- Transport and storage of dangerous goods
 - SS 586 : Part 2: 2014- GHS of classification and labelling of chemicals- Singapore's adaptations
 - SS 586 : Part 3: 2008- Preparation of safety data sheets (SDS)
- MOM: Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations
 - This product is subject to SDS, labelling, PEL and other requirements in the Acts/Regulations
- NEA: Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations.
 - This product is not subject to control under this Acts/Regulations
- SCDF: Fire Safety Act & Fire Safety (Petroleum and Flammable Materials) Regulations
 - This product is not subject to the requirement of this Acts/Regulations
- SPF: The Arms and Explosive Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules
 - This product is not subject to the requirement of this Acts/Regulations

16. OTHER INFORMATION

Revision date: 30-Nov-2015

Abbreviation

ACGIH American Conference of Governmental Industrial Hygienists

TLV Threshold limit value

TWA Time-Weighted Average

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

LD50 Lethal Dose

LC50 Median lethal concentration

IACR International Agency for Research in Cancer

To the best of our knowledge, the information contained herein is accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness. Since the conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge, for this and other reasons, we make no guarantee of results and assume no liability for damages incurred by the use of this product. Please be reminded that all chemicals may present unknown health hazards and should be used with caution.



SAFETY DATA SHEET

SDS Number: SDS-OTH-0023

Version 003

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Name:	NIPPON MOMENTO VELVET METALLIC BASE
Intended Use:	Water-Based Decorative Paint
Distributed by:	Nippon Paint (S) Co. Pte Ltd No. 1 First Lok Yang Road Jurong Singapore 629728
Emergency Phone Number	(65) 6 265 5355
Fax Numbers:	(65) 6 264 1603

2. HAZARD IDENTIFICATION

GHS Classification:

Physical Hazard

Not classified as an physical hazard under GHS criteria

Health Hazard

Not classified as an health hazard under GHS criteria

Environment Hazard

Not classified as an environmental hazard under GHS criteria

GHS Pictogram

None

Signal Word

None

Hazard statements

None

Precautionary statements

None

Response

None

Storage

None

Disposal

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain any substances presenting to physical, health or environmental hazard

4. FIRST-AID MEASURES

INHALATION

- Move person to fresh air and call for medical assistance immediately.
- If not breathing, give artificial respiration, if breathing is difficult, give oxygen. Keep at rest.

SKIN CONTACT

- In case of contact, immediately flush skin with large amounts of water and soap while removing contaminated clothing and shoes.
- If irritation persists, get medical attention.

EYE CONTACT

- Immediately flush eyes with large amounts of water until irritation subsides.
- Remove contact lens
- Obtain medical attention, preferably by an ophthalmologist, immediately.

INGESTION

- DO NOT induce vomiting unless directed to do so by a medical personnel. Never give anything by mouth to an unconscious person. Keep at rest. Get medical attention immediately.

5. FIRE FIGHTING MEASURE

SUITABLE FIRE EXTINGUISHING MEDIA

- Alcohol-resistant foam, Carbon dioxide, or dry chemical type

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

- Combustion products may include and are not limited to: Carbon monoxide and Carbon dioxide.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS

- Wear full protective clothing and NIOSH-approved self-contained breathing apparatus.
- Use water spray to cool fire-exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapours.
- If possible, isolate product from heat, electrical equipments, sparks and open flames.
- Avoid spraying water directly into storage containers.
- Closed containers may explode when exposed to extreme heat.
- Avoid spreading burning liquid with water, isolate liquid.
- Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE

- Wear appropriate protective equipment, e.g. respirators, eye protection, gloves and safety shoes.
- Avoid substance contact with eyes. Do not inhale vapours.
- Ensure supply of fresh air in enclosed rooms.
- Avoid substance contact with eyes. Do not inhale vapours..

ENVIRONMENTAL PRECAUTIONS

- Eliminate sources of ignition.
- Keep public away.
- Contain spilled liquid with sand or other non-combustible absorbent materials
- Wash area and prevent runoff into drains and sewerage system.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.

METHODS AND MATERIALS FOR CONTAINMENTS AND CLEANING UP

- Clean up all spills immediately.
- Absorb spill with absorbent and inert material, then place in container.

- Disposal in accordance to local/national regulations.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Use appropriate personal protective equipment
- Keep out of reach of children.
- Handle containers with care. Open slowly in order to control possible pressure release.
- Do not pressurize containers.
- Do not ingest. Do not breathe in gas/fumes/vapour. Avoid contact with skin and eyes.
- For personal protection, see section 8.
- Use only in areas from which all naked lights and other sources of ignition have been excluded.
- Take precautionary measures against static discharge
- Protect from frost and extremes of temperature.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep containers tightly closed.
- Containers that are opened should be properly resealed and kept upright to prevent leakage.
- Store in cool, dry and well-ventilated place at temperature between 20°C to 40°C away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS/OCCUPATIONAL LIMITS

-No data available

APPROPRIATE ENGINEERING CONTROL MEASURES

- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
- Ensure eyewash stations and safety showers are close to the workstation location.

PERSONAL PROTECTION

Respiratory Protection:	Use of SS548 or NIOSH-approved respirators with organic vapour cartridges is recommended.
Hand Protection:	Use of solvent resistance type or chemical resistant type of protective gloves is recommended.
Eye Protection:	Use of SS473(Part 2) approved safety glasses or goggles with side shields is recommended.
Skin / Body Protection:	Wear chemical resistant clothes and SS 513 (Part 1) approved safety shoes when handling product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Odour	:	Mild paint odour
Odour threshold	:	Not available
pH	:	8-9.5
Melting point/freezing point	:	Not available
Initial boiling point and boiling range	:	Not available
Flash point	:	Not available
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower flammability or explosive limit	:	Not available
Upper flammability or explosive limit	:	Not available
Vapour pressure	:	Not available
Vapour density	:	Not available
Relative density	:	Not available

Solubility	:	Miscible in water
Partition coefficient	:	Not available
Auto-ignition temperature	:	424 °C
Decomposition temperature	:	Not available
Viscosity	:	Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY

- No dangerous reaction known under condition of normal use.

CHEMICAL STABILITY

- The product is stable under recommended storage and handling conditions. (see section 7)

POSSIBILITY OF HAZARDOUS REACTION

- Under normal conditions of storage and use, hazardous reaction will not occur.

CONDITIONS TO AVOID

- Keep away from oxidising agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, drill, grind or expose containers to heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS

- When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself.

Toxicological information of ingredients:

Acute Oral toxicity

Harmful if swallowed.

Acute dermal/skin toxicity

Maybe harmful if in contact with skin

Acute inhalation toxicity

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

Skin corrosion or irritation

Causes skin irritation. Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

Serious eye damage or irritation

May be an eye irritant.

Respiratory or skin sensitisation

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract,

Germ cell mutagenicity

No information available on the product.

Carcinogenicity

No information available on the product.

Reproductive toxicity

No information available on the product.

Specific Target Organ Toxicity (STOT)- single exposure

No information available on the product.

Specific Target Organ Toxicity (STOT)- repeated exposure

No information available on the product.

Aspiration hazard

No information available on the product.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity -No data available

Persistence and degradability

Biodegradation -No data available

Bioaccumulative potential

-No data available

Mobility in soil

-No data available

Result of PBT and vPvB assessment

-No data available

Other adverse effects

There is no ecotoxicological test data available on the product itself.

The product should not be allowed to enter drains or water courses

13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains and watercourses.

Preferred methods of waste disposal are incineration or biological treatment in federal/state approved facility. Empty containers should be recycled or disposed through an approved waste management facility or licensed contractor.

All federal, state and local environmental regulations shall be observed.

14. TRANSPORT INFORMATION

Transport to be in accordance with ADR/RID for road, IMDG for sea and IATA for Air.

LAND TRANSPORT

Not classified as Dangerous Goods by the criteria of the European Agreement concerning the international carriage of Dangerous Goods (ADR) by Road & Regulations concerning the international carriage of Dangerous goods (RID) by Rail.

SEA TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport of Sea.

SEA (Annex II of MARPOL 73/78 and the IBC code)

Not applicable

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by Air

15. REGULATORY INFORMATION

Applicable national regulations:

- Standards on Hazard communication for hazardous chemicals and dangerous goods
 - SS 586 : Part 1: 2014- Transport and storage of dangerous goods
 - SS 586 : Part 2: 2014- GHS of classification and labelling of chemicals- Singapore's adaptations
 - SS 586 : Part 3: 2008- Preparation of safety data sheets (SDS)
- MOM: Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations
 - This product is subject to SDS, labelling, PEL and other requirements in the Acts/Regulations
- NEA: Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations.
 - This product is not subject to control under this Acts/Regulations
- SCDF: Fire Safety Act & Fire Safety (Petroleum and Flammable Materials) Regulations
 - This product is not subject to the requirement of this Acts/Regulations
- SPF: The Arms and Explosive Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules
 - This product is not subject to the requirement of this Acts/Regulations

16. OTHER INFORMATION

Revision date: 30-Nov-2015

Abbreviation

ACGIH American Conference of Governmental Industrial Hygienists

TLV Threshold limit value

TWA Time-Weighted Average

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

LD50 Lethal Dose

LC50 Median lethal concentration

IACR International Agency for Research in Cancer

To the best of our knowledge, the information contained herein is accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness. Since the conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge, for this and other reasons, we make no guarantee of results and assume no liability for damages incurred by the use of this product. Please be reminded that all chemicals may present unknown health hazards and should be used with caution.



SAFETY DATA SHEET

SDS Number: SDS-OTH-0024

Version 003

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Name:	NIPPON MOMENTO VELVET GOLD BASE
Intended Use:	Water-Based Decorative Paint
Distributed by:	Nippon Paint (S) Co. Pte Ltd No. 1 First Lok Yang Road Jurong Singapore 629728
Emergency Phone Number	(65) 6 265 5355
Fax Numbers:	(65) 6 264 1603

2. HAZARD IDENTIFICATION

GHS Classification:

Physical Hazard

Not classified as an physical hazard under GHS criteria

Health Hazard

Not classified as an health hazard under GHS criteria

Environment Hazard

Not classified as an environmental hazard under GHS criteria

GHS Pictogram

None

Signal Word

None

Hazard statements

None

Precautionary statements

None

Response

None

Storage

None

Disposal

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain any substances presenting to physical, health or environmental hazard

4. FIRST-AID MEASURES

INHALATION

- Move person to fresh air and call for medical assistance immediately.
- If not breathing, give artificial respiration, if breathing is difficult, give oxygen. Keep at rest.

SKIN CONTACT

- In case of contact, immediately flush skin with large amounts of water and soap while removing contaminated clothing and shoes.
- If irritation persists, get medical attention.

EYE CONTACT

- Immediately flush eyes with large amounts of water until irritation subsides.
- Remove contact lens
- Obtain medical attention, preferably by an ophthalmologist, immediately.

INGESTION

- DO NOT induce vomiting unless directed to do so by a medical personnel. Never give anything by mouth to an unconscious person. Keep at rest. Get medical attention immediately.

5. FIRE FIGHTING MEASURE

SUITABLE FIRE EXTINGUISHING MEDIA

- Alcohol-resistant foam, Carbon dioxide, or dry chemical type

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

- Combustion products may include and are not limited to: Carbon monoxide and Carbon dioxide.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS

- Wear full protective clothing and NIOSH-approved self-contained breathing apparatus.
- Use water spray to cool fire-exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapours.
- If possible, isolate product from heat, electrical equipments, sparks and open flames.
- Avoid spraying water directly into storage containers.
- Closed containers may explode when exposed to extreme heat.
- Avoid spreading burning liquid with water, isolate liquid.
- Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE

- Wear appropriate protective equipment, e.g. respirators, eye protection, gloves and safety shoes.
- Avoid substance contact with eyes. Do not inhale vapours.
- Ensure supply of fresh air in enclosed rooms.
- Avoid substance contact with eyes. Do not inhale vapours..

ENVIRONMENTAL PRECAUTIONS

- Eliminate sources of ignition.
- Keep public away.
- Contain spilled liquid with sand or other non-combustible absorbent materials
- Wash area and prevent runoff into drains and sewerage system.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.

METHODS AND MATERIALS FOR CONTAINMENTS AND CLEANING UP

- Clean up all spills immediately.
- Absorb spill with absorbent and inert material, then place in container.

- Disposal in accordance to local/national regulations.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Use appropriate personal protective equipment
- Keep out of reach of children.
- Handle containers with care. Open slowly in order to control possible pressure release.
- Do not pressurize containers.
- Do not ingest. Do not breathe in gas/fumes/vapour. Avoid contact with skin and eyes.
- For personal protection, see section 8.
- Use only in areas from which all naked lights and other sources of ignition have been excluded.
- Take precautionary measures against static discharge
- Protect from frost and extremes of temperature.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep containers tightly closed.
- Containers that are opened should be properly resealed and kept upright to prevent leakage.
- Store in cool, dry and well-ventilated place at temperature between 20°C to 40°C away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS/OCCUPATIONAL LIMITS

-No data available

APPROPRIATE ENGINEERING CONTROL MEASURES

- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
- Ensure eyewash stations and safety showers are close to the workstation location.

PERSONAL PROTECTION

Respiratory Protection:	Use of SS548 or NIOSH-approved respirators with organic vapour cartridges is recommended.
Hand Protection:	Use of solvent resistance type or chemical resistant type of protective gloves is recommended.
Eye Protection:	Use of SS473(Part 2) approved safety glasses or goggles with side shields is recommended.
Skin / Body Protection:	Wear chemical resistant clothes and SS 513 (Part 1) approved safety shoes when handling product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Odour	:	Mild paint odour
Odour threshold	:	Not available
pH	:	8-9.5
Melting point/freezing point	:	Not available
Initial boiling point and boiling range	:	Not available
Flash point	:	Not available
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower flammability or explosive limit	:	Not available
Upper flammability or explosive limit	:	Not available
Vapour pressure	:	Not available
Vapour density	:	Not available
Relative density	:	Not available

Solubility	:	Miscible in water
Partition coefficient	:	Not available
Auto-ignition temperature	:	424 °C
Decomposition temperature	:	Not available
Viscosity	:	Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY

- No dangerous reaction known under condition of normal use.

CHEMICAL STABILITY

- The product is stable under recommended storage and handling conditions. (see section 7)

POSSIBILITY OF HAZARDOUS REACTION

- Under normal conditions of storage and use, hazardous reaction will not occur.

CONDITIONS TO AVOID

- Keep away from oxidising agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, drill, grind or expose containers to heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS

- When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself.

Toxicological information of ingredients:

Acute Oral toxicity

Harmful if swallowed.

Acute dermal/skin toxicity

Maybe harmful if in contact with skin

Acute inhalation toxicity

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

Skin corrosion or irritation

Causes skin irritation. Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

Serious eye damage or irritation

May be an eye irritant.

Respiratory or skin sensitisation

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract,

Germ cell mutagenicity

No information available on the product.

Carcinogenicity

No information available on the product.

Reproductive toxicity

No information available on the product.

Specific Target Organ Toxicity (STOT)- single exposure

No information available on the product.

Specific Target Organ Toxicity (STOT)- repeated exposure

No information available on the product.

Aspiration hazard

No information available on the product.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity -No data available

Persistence and degradability

Biodegradation -No data available

Bioaccumulative potential

-No data available

Mobility in soil

-No data available

Result of PBT and vPvB assessment

-No data available

Other adverse effects

There is no ecotoxicological test data available on the product itself.

The product should not be allowed to enter drains or water courses

13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains and watercourses.

Preferred methods of waste disposal are incineration or biological treatment in federal/state approved facility. Empty containers should be recycled or disposed through an approved waste management facility or licensed contractor.

All federal, state and local environmental regulations shall be observed.

14. TRANSPORT INFORMATION

Transport to be in accordance with ADR/RID for road, IMDG for sea and IATA for Air.

LAND TRANSPORT

Not classified as Dangerous Goods by the criteria of the European Agreement concerning the international carriage of Dangerous Goods (ADR) by Road & Regulations concerning the international carriage of Dangerous goods (RID) by Rail.

SEA TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport of Sea.

SEA (Annex II of MARPOL 73/78 and the IBC code)

Not applicable

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by Air

15. REGULATORY INFORMATION

Applicable national regulations:

- Standards on Hazard communication for hazardous chemicals and dangerous goods
 - SS 586 : Part 1: 2014- Transport and storage of dangerous goods
 - SS 586 : Part 2: 2014- GHS of classification and labelling of chemicals- Singapore's adaptations
 - SS 586 : Part 3: 2008- Preparation of safety data sheets (SDS)
- MOM: Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations
 - This product is subject to SDS, labelling, PEL and other requirements in the Acts/Regulations
- NEA: Environmental Protection and Management Act & Environmental Protection and Management (Hazardous Substances) Regulations.
 - This product is not subject to control under this Acts/Regulations
- SCDF: Fire Safety Act & Fire Safety (Petroleum and Flammable Materials) Regulations
 - This product is not subject to the requirement of this Acts/Regulations
- SPF: The Arms and Explosive Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules
 - This product is not subject to the requirement of this Acts/Regulations

16. OTHER INFORMATION

Revision date: 30-Nov-2015

Abbreviation

ACGIH American Conference of Governmental Industrial Hygienists

TLV Threshold limit value

TWA Time-Weighted Average

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

LD50 Lethal Dose

LC50 Median lethal concentration

IACR International Agency for Research in Cancer

To the best of our knowledge, the information contained herein is accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness. Since the conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge, for this and other reasons, we make no guarantee of results and assume no liability for damages incurred by the use of this product. Please be reminded that all chemicals may present unknown health hazards and should be used with caution.



SAFETY DATA SHEET

SDS Number: SDS-OTH-0025

Version 003

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Name:	NIPPON MOMENTO VELVET PEARL BASE
Intended Use:	Water-Based Decorative Paint
Distributed by:	Nippon Paint (S) Co. Pte Ltd No. 1 First Lok Yang Road Jurong Singapore 629728
Emergency Phone Number	(65) 6 265 5355
Fax Numbers:	(65) 6 264 1603

2. HAZARD IDENTIFICATION

GHS Classification:

Physical Hazard

Not classified as an physical hazard under GHS criteria

Health Hazard

Not classified as an health hazard under GHS criteria

Environment Hazard

Not classified as an environmental hazard under GHS criteria

GHS Pictogram

None

Signal Word

None

Hazard statements

None

Precautionary statements

None

Response

None

Storage

None

Disposal

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain any substances presenting to physical, health or environmental hazard

4. FIRST-AID MEASURES

INHALATION

- Move person to fresh air and call for medical assistance immediately.
- If not breathing, give artificial respiration, if breathing is difficult, give oxygen. Keep at rest.

SKIN CONTACT

- In case of contact, immediately flush skin with large amounts of water and soap while removing contaminated clothing and shoes.
- If irritation persists, get medical attention.

EYE CONTACT

- Immediately flush eyes with large amounts of water until irritation subsides.
- Remove contact lens
- Obtain medical attention, preferably by an ophthalmologist, immediately.

INGESTION

- DO NOT induce vomiting unless directed to do so by a medical personnel. Never give anything by mouth to an unconscious person. Keep at rest. Get medical attention immediately.

5. FIRE FIGHTING MEASURE

SUITABLE FIRE EXTINGUISHING MEDIA

- Alcohol-resistant foam, Carbon dioxide, or dry chemical type

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

- Combustion products may include and are not limited to: Carbon monoxide and Carbon dioxide.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS

- Wear full protective clothing and NIOSH-approved self-contained breathing apparatus.
- Use water spray to cool fire-exposed surfaces and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapours.
- If possible, isolate product from heat, electrical equipments, sparks and open flames.
- Avoid spraying water directly into storage containers.
- Closed containers may explode when exposed to extreme heat.
- Avoid spreading burning liquid with water, isolate liquid.
- Do not allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE

- Wear appropriate protective equipment, e.g. respirators, eye protection, gloves and safety shoes.
- Avoid substance contact with eyes. Do not inhale vapours.
- Ensure supply of fresh air in enclosed rooms.
- Avoid substance contact with eyes. Do not inhale vapours..

ENVIRONMENTAL PRECAUTIONS

- Eliminate sources of ignition.
- Keep public away.
- Contain spilled liquid with sand or other non-combustible absorbent materials
- Wash area and prevent runoff into drains and sewerage system.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.

METHODS AND MATERIALS FOR CONTAINMENTS AND CLEANING UP

- Clean up all spills immediately.
- Absorb spill with absorbent and inert material, then place in container.

- Disposal in accordance to local/national regulations.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Use appropriate personal protective equipment
- Keep out of reach of children.
- Handle containers with care. Open slowly in order to control possible pressure release.
- Do not pressurize containers.
- Do not ingest. Do not breathe in gas/fumes/vapour. Avoid contact with skin and eyes.
- For personal protection, see section 8.
- Use only in areas from which all naked lights and other sources of ignition have been excluded.
- Take precautionary measures against static discharge
- Protect from frost and extremes of temperature.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep containers tightly closed.
- Containers that are opened should be properly resealed and kept upright to prevent leakage.
- Store in cool, dry and well-ventilated place at temperature between 20°C to 40°C away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS/OCCUPATIONAL LIMITS

-No data available

APPROPRIATE ENGINEERING CONTROL MEASURES

- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
- Ensure eyewash stations and safety showers are close to the workstation location.

PERSONAL PROTECTION

Respiratory Protection:	Use of SS548 or NIOSH-approved respirators with organic vapour cartridges is recommended.
Hand Protection:	Use of solvent resistance type or chemical resistant type of protective gloves is recommended.
Eye Protection:	Use of SS473(Part 2) approved safety glasses or goggles with side shields is recommended.
Skin / Body Protection:	Wear chemical resistant clothes and SS 513 (Part 1) approved safety shoes when handling product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Odour	:	Mild paint odour
Odour threshold	:	Not available
pH	:	8-9.5
Melting point/freezing point	:	Not available
Initial boiling point and boiling range	:	Not available
Flash point	:	Not available
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not applicable
Lower flammability or explosive limit	:	Not available
Upper flammability or explosive limit	:	Not available
Vapour pressure	:	Not available
Vapour density	:	Not available
Relative density	:	Not available

Solubility	:	Miscible in water
Partition coefficient	:	Not available
Auto-ignition temperature	:	424 °C
Decomposition temperature	:	Not available
Viscosity	:	Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY

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CHEMICAL STABILITY

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POSSIBILITY OF HAZARDOUS REACTION

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CONDITIONS TO AVOID

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HAZARDOUS DECOMPOSITION PRODUCTS

- When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself.

Toxicological information of ingredients:

Acute Oral toxicity

Harmful if swallowed.

Acute dermal/skin toxicity

Maybe harmful if in contact with skin

Acute inhalation toxicity

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

Skin corrosion or irritation

Causes skin irritation. Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

Serious eye damage or irritation

May be an eye irritant.

Respiratory or skin sensitisation

Vapour concentrations above the recommended exposure levels may be irritating to the eyes and the respiratory tract,

Germ cell mutagenicity

No information available on the product.

Carcinogenicity

No information available on the product.

Reproductive toxicity

No information available on the product.

Specific Target Organ Toxicity (STOT)- single exposure

No information available on the product.

Specific Target Organ Toxicity (STOT)- repeated exposure

No information available on the product.

Aspiration hazard

No information available on the product.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity -No data available

Persistence and degradability

Biodegradation -No data available

Bioaccumulative potential

-No data available

Mobility in soil

-No data available

Result of PBT and vPvB assessment

-No data available

Other adverse effects

There is no ecotoxicological test data available on the product itself.

The product should not be allowed to enter drains or water courses

13. DISPOSAL CONSIDERATIONS

The product should not be allowed to enter drains and watercourses.

Preferred methods of waste disposal are incineration or biological treatment in federal/state approved facility. Empty containers should be recycled or disposed through an approved waste management facility or licensed contractor.

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SEA (Annex II of MARPOL 73/78 and the IBC code)

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Revision date: 30-Nov-2015

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TLV Threshold limit value

TWA Time-Weighted Average

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

LD50 Lethal Dose

LC50 Median lethal concentration

IACR International Agency for Research in Cancer

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