



# SAFETY DATA SHEET

SDS Number: SDS/OTH-0033

Version No: 003

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

|                         |  |
|-------------------------|--|
| Product Name:           | <b>NIPPON PAINT FLOORSHIELD 831 RE-SURFACING SCREED (PART A)</b>                     |
| Intended Use:           | Liquid Component of 2-part Self-leveling Mortar for Floor Application                |
| Distributed:            | Nippon Paint (S) Co. Pte Ltd<br>No. 1 First Lok Yang Road<br>Jurong Singapore 629728 |
| Emergency Phone Number: | (65) 6 265 5355  |
| Fax Numbers:            | (65) 6 264 1603  |

## 2. HAZARDS 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

This product does not require a hazard warning label in accordance with GHS criteria.

#### Other hazards which do not result in classification

No specific dangers known, if the regulation/notes for storage and handling are considered.

May be irritating to eyes and respiratory tract in a closed confined area.

No chronic hazard is expected when good industrial and personal hygiene is practiced.

Take note of the resulting hazards of this product when mixed with the powder component (see SDS of Nippon Paint Floorshield 831 Re-Surfacing Screed Part B).

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

This product does not contain hazardous components in concentrations higher than the concentration limit according to the GHS Classification of Chemicals.

## 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 MEASURES**

---

**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.

**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**

This product does not contain components which have relevant occupational exposure limits.

**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 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 safety glasses or goggles with side shields is recommended.                             |
| Skin / Body Protection: | Wear chemical resistant clothes and safety shoes when handling product.                        |

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

---

|   |   |                                     |
|---|---|-------------------------------------|
| Appearance                              | : | Liquid                              |
| Odour                                   | : | Not available                       |
| Odour threshold                         | : | Not available                       |
| pH                                      | : | Not available                       |
| Melting point/freezing point            | : | Not applicable                      |
| Initial boiling point and boiling range | : | 100 degC                            |
| Flash point                             | : | Not flammable                       |
| Evaporation rate                        | : | Not available                       |
| Flammability (solid, gas)               | : | Not applicable                      |
| Lower flammability or explosive limit   | : | None allocated                      |
| Upper flammability or explosive limit   | : | None allocated                      |
| Vapour pressure                         | : | Not available                       |
| Vapour density                          | : | > 1.00 (Vapour is heavier than air) |
| Relative density                        | : | Not available                       |
| Solubility                              | : | Soluble in water                    |
| Partition coefficient                   | : | Not available                       |
| Auto-ignition temperature               | : | Not available                       |
| Decomposition temperature               | : | Not available                       |
| Viscosity                               | : | Not available                       |
| Solid Content                           | : | Approx. 16%                         |
| Specific Gravity                        | : | Approx. 1.02                        |

## 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

---

This product has not been tested and all the toxicological statements have been derived from the respective components' available toxicity information.

### Acute toxicity

Experimental/calculated data:

LD50, oral: > 5,000 mg/kg

LD50, dermal: > 5,000 mg/kg

LC50, inhalation: > 20 mg/L

### Irritation / corrosion

The product is not irritating to the eyes or skin. If the product adheres to skin, irritation may occur when it dries.

Experimental/calculated data:

Skin: Species: rabbit / Result: non-irritant / Method: OECD Guideline 404

Eye: Species: rabbit / Result: non-irritant / Method: OECD Guideline 405

### Respiratory / Skin sensitization

The product is not expected to cause respiratory or skin sensitization.

### Germ cell mutagenicity / Carcinogenicity / Reproductive toxicity / Developmental toxicity

Based on the assessment of available information, the product is: not mutagenic in bacteria; has no known carcinogenic effect; and not expected to cause reproductive and developmental toxicity.

### Specific target organ toxicity (single and repeated exposure)

Based on the available information, there is no specific target organ toxicity expected after a single or repeated exposure to the product.

### Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

## 12. ECOLOGICAL INFORMATION

---

The following ecological assessment is based on the available ecotoxicity information of the product's components.

### **Ecotoxicity**

This product is not expected to be toxic to aquatic life based on the toxicity values to the following aquatic organisms:

Fish: LC50 (96h) > 100 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)

Aquatic invertebrates: EC50 (48h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants: LC50 (72h) > 100 mg/l, *Scenedesmus subspicatus* (OECD Guideline 201)

### **Persistence and degradability**

Elimination information: >70% DOC reduction (OECD 302B; ISO 9888; 88/302/EEC, part C)

Easily eliminated from water.

### **Bioaccumulation potential**

Based on structural properties, the polymer component is not biologically available. Accumulation in organisms is not expected.

### **Additional information**

Do not release product untreated into natural waters. At the present knowledge of the product, no negative ecological effects are expected.

## 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 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: 19-Dec-2016

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

Disclaimer

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-0034

Version No: 003

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

|                         |  |
|-------------------------|--|
| Product Name:           | <b>NIPPON PAINT FLOORSHIELD 831 RE-SURFACING SCREED (PART B)</b>                     |
| Intended Use:           | Powder Component of 2-part Self-leveling Mortar for Floor Application                |
| Distributed:            | Nippon Paint (S) Co. Pte Ltd<br>No. 1 First Lok Yang Road<br>Jurong Singapore 629728 |
| Emergency Phone Number: | (65) 6 265 5355  |
| Fax Numbers:            | (65) 6 264 1603  |

## 2. HAZARDS IDENTIFICATION

### GHS Classification:

#### Physical Hazard

Not classified as an physical hazard under GHS criteria

#### Health Hazard

Skin irritation - Category 2

Eye irritation - Category 2

Specific target organ toxicity (repeated exposure) - Category 3

#### Environment Hazard

Not classified as an environmental hazard under GHS criteria

#### GHS Pictogram



#### Signal Word

Warning

#### Hazard statements

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

#### Precautionary statements

P261 Avoid breathing dust.

P264 Wash hands and forearms thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection.

Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

Storage

P402+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked-up.

Disposal

P501 Dispose of contents/container in accordance with Singapore regulations.

---

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

---

| <u>Substances</u> | <u>CAS No.</u> | <u>%</u> |
|-------------------|----------------|----------|
| Portland Cement   | 65997-15-1     | 30 - 50% |
| Silica Sand       | 14808-60-7     | 30 - 50% |

---

### 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 MEASURES

---

**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.

**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**

Portland Cement, CAS No: 65997-15-1: ACGIH TLV = 10 mg/m<sup>3</sup> (total dust)

Silica Sand (Quartz), CAS No: 14808-60-7: Singapore PEL (long-term) = 0.1 mg/m<sup>3</sup>

**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 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 safety glasses or goggles with side shields is recommended.

Skin / Body Protection: Wear chemical resistant clothes and safety shoes when handling product.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

---

|   |   |                           |
|---|---|---------------------------|
| Appearance                              | : | Powder                    |
| Odour                                   | : | Not available             |
| Odour threshold                         | : | Not available             |
| pH                                      | : | 11 – 12 (wet)             |
| Melting point/freezing point            | : | Not applicable            |
| Initial boiling point and boiling range | : | Not applicable            |
| Flash point                             | : | Not flammable             |
| Evaporation rate                        | : | Not available             |
| Flammability (solid, gas)               | : | Not applicable            |
| Lower flammability or explosive limit   | : | None allocated            |
| Upper flammability or explosive limit   | : | None allocated            |
| Vapour pressure                         | : | Not available             |
| Vapour density                          | : | Not available             |
| Relative density                        | : | Not available             |
| Solubility                              | : | Slightly soluble in water |
| Partition coefficient                   | : | Not available             |
| Auto-ignition temperature               | : | Not available             |
| Decomposition temperature               | : | Not available             |
| Viscosity                               | : | Not available             |
| Solid Content                           | : | Approx. 100%              |

---

**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

---

This product has not been tested and all the toxicological statements have been derived from the respective components' available toxicity information.

#### Potential Health Effects

The potential effects on human health stated below are based on our knowledge of the product and statistically derived from the cumulative data estimates of the hazardous components of the product, following the classification principles of the Globally Harmonized System of Classification of Chemicals (GHS). Do note that the product has not been subjected to actual toxicological tests.

#### Acute Toxicity

Acute Toxicity Estimates (ATE) based on the hazardous components of the product:

LD50, oral: > 5,000 mg/kg

LD50, dermal: > 5,000 mg/kg

LC50, inhalation: > 20 mg/L

#### Skin Corrosion

In its wet state (when mixed with water), this product causes skin irritation.

#### Serious Eye Damage

In its wet state, this product causes serious eye irritation.

#### Respiratory / Skin sensitization

This product is not expected to cause allergic skin reaction in contact with skin (skin sensitization) or respiratory allergy/asthma symptoms/breathing difficulties if inhaled (respiratory sensitization).

#### Germ cell mutagenicity / Reproductive toxicity / Developmental toxicity

Based on the assessment of available information, studies have shown that the product's components are not mutagenic in bacteria and are not expected to cause reproductive and/or developmental toxicity.

#### Carcinogenicity

The product contains minute amounts of respirable crystalline silica which is classified as a Group 1 carcinogen by the International Agency for Research on Cancer (IARC). While the respirable crystalline silica content of the product (<0.1%) is insufficient for GHS classification, long-term exposure to significantly large amounts may result in lung fibrosis (silicosis).

#### Specific target organ toxicity (Repeated Exposure)

Based on the available information, the product is not expected to cause damage to any specific organs after a single or prolonged/repeated exposure. However, this product may cause respiratory irritation upon repeated exposure to the powder dust.

---

### 12. ECOLOGICAL INFORMATION

---

The following ecological assessment is based on the available ecotoxicity information of the product's components.

#### Ecotoxicity

There is insufficient available data (toxicity to aquatic organisms) specific for the product's components. The metal components of metal-containing inorganic substances such as cement and silica sand show few toxic effects at physiological pH levels, but transformation to more soluble ionic forms may introduce new or magnified effects.

**Persistence and degradability**

This product is non-biodegradable and is not expected to create environmental hazard unless dumped in massive quantities.

**Mobility**

Most metal components of cement and silica sand will exhibit limited mobility in dry soil and remain in the upper layer; some will leach locally into ground water and/or surface water ecosystems when soaked by rain.

---

**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 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: 19-Dec-2016

### 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

### Disclaimer

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.