SAFETY DATA SHEET

SDS Number: SDS-70844 Version No: 003

Revision Date/Version No:07-07-2022 /3/1.1.1

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

Product Name:	FLOOR-PRO 333 SF EPOXY WHITE PART A
Intended Use:	Solvent-Free Floor Coating
Manufacturer:	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. HAZARDS IDENTIFICATION

GHS Classification:

Physical Hazard

Not classified as a physical hazard under GHS criteria

Health Hazard

Skin corrosion/irritation	Category 2
Serious eye damage/irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity:	
- Repeated exposure	Category 1

Environmental Hazard

Aquatic Chronic	Category 2

GHS Pictogram

Signal Word

Danger

Hazard statements

H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
H372: Causes damage to organs through prolonged or repeated exposure

H411: Toxic to aquatic life with long lasting effects

Precautionary statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P272: Contaminated work clothing should not be allowed out of the workplace
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

Response

P314: Get medical advice/attention if you feel unwell
P321: Specific treatment (see Section 4 of SDS)
P362: Take off contaminated clothing and wash before reuse
P363: Wash contaminated clothing before reuse
P391: Collect spillage
P302+352: IF ON SKIN: Wash with soap and water
P332+313: If skin irritation occurs: Get medical advice/attention
P333+313: If skin irritation or a rash occurs: Get medical advice/attention
P337+313: If eye irritation persists: Get medical advice/attention
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

Storage

None

Disposal

P501: Dispose of contents/container to appropriate waste site or reclaimer in accordance with local or national regulations

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances	CAS No.	%
Bisphenol-A epoxy resin	25068-38-6	21-47
Crystalline Silica	14808-60-7	20-44
1,6-Bis(2,3-epoxypropoxy)hexane	16096-31-4	3-6
Benzyl Alcohol	100-51-6	1-2
Substances determined to be non-hazardous	-	Balance
		100%

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 runoff 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 INCOMPATIBILTIES

- 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

Substances	ACGIH TLV-TWA		OSHA PEL-TWA	
	ppm	mg/m3	ppm	mg/m3
Bisphenol-A epoxy resin	-	-	-	-
Crystalline Silica	-	0.03	-	0.50
1,6-Bis(2,3-epoxypropoxy)hexane	-	-	-	-
Benzyl Alcohol	10	-	-	-

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	: Aromatic hydrocarbon odour
Odour threshold	: Not available
pH	: Not available
Melting point/freezing point	: Not available
Initial boiling point and boiling range	: Between 203 and 205 °C
Flash point	: 78 °C

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	: > 1.00 (Vapour is heavier than air)
Relative density	: Not available
Solubility	: Not Miscible in water
Partition coefficient	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity	: 40 - 90 Poise

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 section7)

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 substances:

Acute oral toxicity
Harmful if swallowed

Substances	Oral LD50(Rat), mg/kg
Bisphenol-A epoxy resin	11400
Crystalline Silica	Data not available
1,6-Bis(2,3-epoxypropoxy)hexane	Data not available
Benzyl Alcohol	1230

Acute dermal/skin toxicity
May be harmful if in contact with skin

Substances	Dermal LD50 (Rabbit), mg/kg
Bisphenol-A epoxy resin	1600
Crystalline Silica	Data not available

Substances	Dermal LD50 (Rabbit), mg/kg
1,6-Bis(2,3-epoxypropoxy)hexane	Data not available
Benzyl Alcohol	Data not available

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.

Substances	Inhalation Vapor LC50 (Rat), mg/L/4hr
Bisphenol-A epoxy resin	Data not available
Crystalline Silica	Data not available
1,6-Bis(2,3-epoxypropoxy)hexane	Data not available
Benzyl Alcohol	Data not available

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

Titanium Dioxide

The International Agency for Research on Cancer (IARC) has classified Titanium Dioxide as possibly carcinogenic to humans (Group 2B) based on inadequate evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals

Crystalline Silica

The International Agency for Research on Cancer (IARC) has classified inhaled crystalline silica (CAS No. 14808-60-7) as a Group 1 carcinogen based on sufficient evident of carcinogenicity in humans and experimental animals. Exposure to inhaled crystalline silica can only occur when it is present in respirable form. Normal application procedures pose no hazard since the crystalline silica is wet and encapsulated, but grinding or sanding dried films of this product may yield respirable silica dusts.

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

Asphyxiation hazard

May be harmful if swallowed and enters airways

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/rail, IMDG for sea and IATA for Air.

LAND TRANSPORT

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.

UN Number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class:	9
Subsidary Risk(s):	-
Packaging Group:	III

SEA TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport of Sea.

UN Number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class:	9
Subsidary Risk(s):	-
Packaging Group:	III
Marine Pollutant	Yes

SEA (ANNEX II OF MARPOL 73/78 AND THE IBC CODE)

Not applicable

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by Air

UN Number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class:	9
Subsidary Risk(s):	-
Packaging Group:	III

15. REGULATORY INFORMATION

Applicable national regulations:

- Standards on Hazard communication for hazardous chemicals and dangerous goods
  - SS 586: Part 1: 2021-Transport and storage of dangerous goods
  - SS 586: Part 2: 2014-GHS of classification and labelling of chemicals
  - SS 586: Part 3: 2008(2014)-Preparation of safety data sheet
- 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/Version No.: 07-07-2022 /3/1.1.1
History
Previous Revision Date /Version No.: not applicable //

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
IARC 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.