



Smart HP 2K PU Exterior Flake Primer 33 (Hardner-Part B) Hardener for 2 Component Solvent based Polyurethane 0.2L & 1L

Version No. : 2.1.24

Issue Date: 05/06/2024

Safety Data Sheet according to CLASS requirement



SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING	
Product Identifier	
Product Name	Smart HP 2K PU Exterior Flake Primer 33 - Hardener (Part B)
Product Code	SPPUEF33-HD
Chemical Name	Not Applicable
Chemical Formula	Not Applicable
Other means of Identification	Hardener for 2 Component Solvent based Polyurethane
CAS Number	Not Applicable
Relevant use of the chemical and restriction	
Relevant identified uses	Use according to manufacturer's directions
Details of manufacturer / importer	
Registered Company Name	SMART PAINT MANUFACTURING SDN BHD (1031014-A)
Address	No. 9 & 11, Jalan Indah Gemilang 5, Taman Perindustrian Gemilang, 81800 Ulu Tiram, Johor, Malaysia.
Telephone	+607-863 9855
Fax	+607-861 5055
Email	info@smart-paints.com
Web	http://www.smart-paints.com
Emergency telephone number	
Association / Organisation	Not Applicable
Emergency telephone number	Not Applicable
Other emergency telephone number	Not Applicable
SECTION 2 HAZARDS IDENTIFICATION	
Classification of the substances or mixture	
GHS Classification	<p>Physical Hazard Flammable liquids - Category 3</p> <p>Health Hazard Acute toxicity (Oral) - Category 4 Skin Sensitization - Category 1 Specific target organ toxicity -Single exposure (irritating to respiratory system) - Category 3 Respiratory sensitization - Category 1</p> <p>Environment Hazard Hazardous to the aquatic environment -acute - Category 3 Hazardous to the aquatic environment -chronic - Category 3</p>
Label elements	
GHS label elements	
Signal word	Warning
Hazard statement(s)	
H226	Flammable liquid and vapour.
H332	Harmful if swallowed.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Wear protective gloves/protective clothing/eye protection/face protection.
P241	Use explosion-proof electrical/ ventilating/lighting equipment.
P242	Obtain special instructions before use.
P243	Do not handle until all safety precautionary have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Use personal protective equipment as required.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing shall not be allowed out of the workplace.

SECTION 2 HAZARDS IDENTIFICATION	
Precautionary statement(s) Response	
P302+P352	IF ON SKIN : Wash with plenty of water and soap.
P332+P313	If skin irritation occurs : Get medical advice / attention
P303+P361+P353	IF ON SKIN (or hair) : Remove /take off immediately all contaminated clothing. Rinse skin with water/ shower.
P370+P378	Take off contaminated clothing and was before reuse.
P391	Collect spillage.
Precautionary statement(s) Storage	
P405	Store in locked up.
Precautionary statement(s) Disposal	
P501	Dispose of content/ container to appropriate waste site or reclaimer in accordance with local or national regulations.

SECTION 3 COMPOSITION / INFORMATION OF INGREDIENTS		
CAS number	% [weight]	Name
28182-81-2	>=50.0 - <=100.0	Hexamethylene diisocyanate isocyanurate-type oligomers
1330-20-7	>=7.0 - < 15.0	Xylene
100-41-4	>=0.0 < 3.0	Ethylbenzene
822-06-0	0 - 0.3	1,6-hexamethylene diisocyanate

SECTION 4 FIRST AID MEASURES	
Description of first aid measure	
Eye contact	<ul style="list-style-type: none"> Check or and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelid open. Do not use an eye ointment. Seek for medical attention.
Skin contact	<ul style="list-style-type: none"> Frequent or prolonged contact may irritate and cause dermatitis. Skin contact may aggravate an exiting dermatitis condition. Remove contaminated clothing – launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Get medical attention if redness or irritation occurs.
Inhalation	<ul style="list-style-type: none"> High vapour (>1000 ppm) are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anaesthesia. Drowsine unconsciousness and other central nervous system effects. Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform mouth to mouth resuscitation. Administer oxygen if available. Allow the victim to rest in a well ventilated area. Seek medical attention.

SECTION 5 FIREFIGHTING MEASURES	
Suitable Fire Extinguishing Media :	
Small fire : Use dry powder, Foam.	
Large fire : Use water spray. Fog or foam. Water or foam may cause frothing.	
Special Protective Actions For Fire Fighters:	
Protective equipment for fire-fighting:	
Wear a self-contained breathing apparatus.	
Specific Hazards Arising From The Chemical :	
Hazards during fire-fighting: harmful vapours	
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.	

<p>SECTION 6 ACCIDENTAL RELEASE MEASURES</p> <p>Personal Precautions, Protective Equipment And Emergency Procedure Use personal protective clothing. Breathing protection required. Can release flammable vapours. Wind direction should be noted. Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools.</p> <p>Environment Precaution Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.</p> <p>Methods And Materials For Containments And Clean Up For large amounts: Pump off product. For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations</p>
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<p>SECTION 7 HANDLING AND STORAGE</p> <p>Precautions For Safe Handling Avoid smoking and use of open fire. Avoid inhalation of vapours and contact with skin and eyes. Observe good industrial practices.</p> <p>Condition For Safe Storage ,including Any Incompatibilities Store in tightly closed original container in well-ventilated area. Avoid expose to direct sunlight. Storage stability: If moisture enters isocyanate containers, CO2 forms and pressure builds up.</p>

<p>SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION</p> <p>Control Parameters/ Occupational Limits</p> <table border="1"> <thead> <tr> <th rowspan="2">Ingredient/Bahan</th> <th colspan="2">ACGIH TLV-TWA</th> <th colspan="2">OSHA PEL-TWA</th> </tr> <tr> <th>ppm</th> <th>mg/m3</th> <th>ppm</th> <th>mg/m3</th> </tr> </thead> <tbody> <tr> <td>Ethylbenzene</td> <td>20</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1,6-hexamethylene</td> <td>0.005</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Xylene</td> <td>100</td> <td></td> <td>150</td> <td></td> </tr> </tbody> </table> <p>APPROPRIATE ENGINEERING CONTROL MEASURES If user operations generate dust, fumes, gas, vapours or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Emission from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.</p> <p>PERSONAL PROTECTION Respiratory protection Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended : Full mask with type Cartridge filter.</p> <p>Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products I a risk assessment indicates this is necessary. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations.</p> <p>Eye protection Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended : Safety glasses with side-shields.</p> <p>Skin/ Body Protection Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended : Wear protective clothing.</p>	Ingredient/Bahan	ACGIH TLV-TWA		OSHA PEL-TWA		ppm	mg/m3	ppm	mg/m3	Ethylbenzene	20				1,6-hexamethylene	0.005	-	-	-	Xylene	100		150	
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SECTION 10 STABILITY AND REACTIVITY**REACTIVITY**

No dangerous reaction known under condition of normal use.

CHEMICAL STABILITY

Stable under normal temperature conditions and recommended use.

POSSIBILITY OF HAZARDOUS REACTION

Reacts with alcohols. Reacts with amines. Reacts with substances which contain active hydrogen. Reacts with water, with formation of carbon dioxide. The formation of gaseous decomposition products builds up pressure in tightly closed containers. Vapours may form ignitable mixture with air.

CONDITIONS TO AVOID

Avoid moisture. See SDS section 7 - Handling and storage.

HAZARDOUS DECOMPOSITION PRODUCTS

Decomposition products:
No applicable information available.
Thermal decomposition:
No decomposition if used correctly

SECTION 11 TOXICOLOGY INFORMATION**Primary routes of exposure**

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects**Oral**

Type of value: LD50
Species: rat
Value: > 5,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation

Type of value: ATE
Species: rat
Value: > 1 - 5 mg/l
Exposure time: 4 h
The product has not been tested. The statement has been derived from the properties of the individual components.

Dermal

Type of value: ATE
Species: rat
Value: not determined

Skin

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404
The product has not been tested. The statement has been derived from the properties of the individual components.

Eye

Species: rabbit
Result: non-irritant
Method: OECD Guideline 405
The product has not been tested. The statement has been derived from the properties of the individual components.

Sensitization**Aspiration Hazard**

No aspiration hazard expected.

Chronic Toxicity/Effects**Repeated dose toxicity**

Information on: 1-methoxy-2-propylacetate
Assessment of repeated dose toxicity: Repeated dermal uptake of the substance did not cause substance-related effects. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The substance may cause damage to the olfactory epithelium after repeated inhalation. Repeated oral uptake of the substance did not cause substance-related effects.

Information on: xylene

Assessment of repeated dose toxicity: Overexposure may cause liver and kidney toxicity. Repeated exposure may affect certain organs. Damages the central nerve system. The substance can cause changes in the following organs after repeated exposure to large quantities: Liver Kidney

Genetic toxicity

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Teratogenicity

Assessment of teratogenicity: Based on the ingredients, there is no suspicion of a teratogenic effect

SECTION 11 TOXICOLOGY INFORMATION**Genetic toxicity**

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Teratogenicity

Assessment of teratogenicity: Based on the ingredients, there is no suspicion of a teratogenic effect

SECTION 12 ECOLOGICAL INFORMATION**Toxicity****Aquatic toxicity**

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

LC50 (96 h) 10 - 100 mg/l, Brachydanio rerio

The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic invertebrates

EC50 10 - 100 mg/l, Daphnia magna

The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic plants

EC50 (72 h) 10 - 100 mg/l, algae

The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

bacteria/EC50 (3 h): > 1,000 mg/l

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from the properties of the individual components.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The substance can be virtually eliminated from water in suitable effluent treatment plants by biodegradation, stripping and mechanical separation.

Elimination information

Not readily biodegradable (by OECD criteria).

Additional information

Other ecotoxicological advice:

Do not release untreated into natural waters. The local regulations on waste-water treatment must be followed.

SECTION 13 DISPOSAL INFORMATION**Waste Disposal :**

Recover or recycle if possible. Otherwise dispose in accordance with all applicable with all applicable national environment laws and regulations.

Product Disposal:

This product when dispose of in its unused and uncontaminated state should be treated as a hazardous waste.

Container Disposal :

Drain container thoroughly. Rinse three times with suitable solvent. Treat rinsing as for product disposal. After draining, vent in a safe place away from sparks and fire. Send drum recoverer or metal reclaimer. Residue may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Keep container labelled until cleaned and then remove or deface labels.

SECTION 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: 1263

Proper shipping name : Paint (including paint, lacquer, enamel, stain, shellac, varnish, liquid filler and liquid lacquer base) or paint related material (including paint thinning or reducing compound.

Class: 3

Packaging Group: III

SEA TRANSPORT

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

UN Number: 1263

Proper shipping name : Paint (including paint, lacquer, enamel, stain, shellac, varnish, liquid filler and liquid lacquer base) or paint related material (including paint thinning or reducing compound.

Class : 3

Packaging Group: III

Marine Pollutant: No

SEA (Annex II of MARPOL 73/78 and the IBC Code)/ LAUT (Annex II of MARPOL 73/78 dan 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 the transport by Air.

UN Number: 1263

Proper shipping name : Paint (including paint, lacquer, enamel, stain, shellac, varnish, liquid filler and liquid lacquer base) or paint related material (including paint thinning or reducing compound.

Class: 3

Packaging Group: III

SECTION 15 REGULATORY INFORMATION

Applicable national regulations :

- a) OSHA 1994 and relevant regulation
- b) Factories and Machinery Act 1967 and relevant regulations
- c) Environment Quality Act 1967 and regulations.
- d) Pesticide Act 1974 and regulations
- e) Occupational Safety and Health (Classification, Labelling And Safety Data Sheet of Hazardous Chemicals) Reg 2013
- f) Industry Code Of Practice (On Chemicals Classification And Hazard Communication

SECTION 16 OTHER INFORMATION

Date of preparation: 05-06-2024

Date of revision: -

Version: 01

ABBREVIATION/SINGKATAN

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

CAS Registry Numbers Chemical Abstracts Service Registry Numbers

ICOP Industry Code Of Practice on Chemical Classification and Health approved by Minister under section 37 of the Act

C Ceiling Limit

CEIL Ceiling Limit airborne concentration

STEL Short Term Exposure Limit

DNA Data Not Available

N/R Not Regulated

Disclaimer

All information appearing here in is based on our present state of our knowledge. However the information in this SDS may not be valid for such material used in combination with any other materials or in any process. No representation, warranty or guarantee is made as to its accuracy, reliability or completeness. We do not accept liability for any loss or damage that may occur from the use of this information.