



Smart Heavy Duty 2K Polyurethane Exterior Clear 88

2 Component Solvent Based Polyurethane for Exterior

0.5 Litre & 2.5 Litres

Version No. :

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 Heavy Duty 2K Polyurethane Exterior Clear 88
Product Code	SP2KPE-CLEAR88
Chemical Name	Not Applicable
Chemical Formula	Not Applicable
Other means of Identification	2 Component Solvent Based Polyurethane for Exterior
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	Health Hazard Flammable liquids - Category 3 Skin Sensitization - Category 1
Label elements	
GHS label elements	
Signal word	Warning
Hazard statement(s)	
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.

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
-	< 90	Resin
123-86-4	< 9	Butyl acetate
-	< 1	Additive

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:	
Cool container in water spray in order to prevent pressure build-up, auto ignition or explosion. Avoid flushing spilled material into sewers, stream or other bodies of water. For small outdoor fires, portable fire extinguishers may be used, and self contained breathing apparatus (SCBA) may not be required. Respiratory and eye protection are required for fire fighting personnel.	
Specific Hazards Arising From The Chemical :	
Static discharge, material can accumulate static charges which can cause an incendiary electrical discharge. "Empty" containers retain product residue (liquid and/or vapour) and can be dangerous. DO NOT pressurize, cut. Weld braze, solder, drill grind, or expose such containers to heat, flame sparks, static electricity, or other sources of ignition ; they may explode and cause injury or death.	

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment And Emergency Procedure**

Eye /skin protection :

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available. Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Wear a face shield and chemical resistant clothing such as rubber apron when splashing is likely.

Respiratory Protection :

Use JKPP/NIOSH approved respiratory protection (full face piece recommended) when exposure limits are exceeded.

Ventilation :

Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. If practical, use local mechanical exhaust ventilation at source of air contamination such as open process equipment.

Environment Precaution

Flammable liquid. Ventilate. Eliminate all sources of ignition. Prevent additional discharge of material. For small spills implement cleanup procedure; for large spills implement cleanup procedure and if in public area, keep public away and advise authorities, provide suitable personal protective. dike and contain spill with inert material (sand, earth, etc) and transfer liquid and solid separately to container for recovery or disposal. Report as per regulatory or disposal. Do not use combustible material such as sawdust. Report as per regulatory equipment.

Methods And Materials For Containments And Clean Up

For small liquid spills (<1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residue to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose to all salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Remove contaminated soil and dispose of safely.

SECTION 7 HANDLING AND STORAGE**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.

Condition For Safe Storage ,including Any Incompatibilities

Store in tightly closed original container in well-ventilated area. Avoid expose to direct sunlight.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Control Parameters/ Occupational Limits**

Ingredient/Bahan	ACGIH TLV-TWA		OSHA PEL-TWA	
	ppm	mg/m ³	ppm	mg/m ³
Butyl acetate	150	-	150	713

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.

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.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if 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.

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.

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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance / colour	Liquid/Clear
Odour	Aromatic Hydrocarbon
Solid	86-88%
Specific Gravity (@ 25°C)	1.04
Viscosity (Ku)	53 KU
*Boiling Point	123- 126 oC
*Flash Point	27 oC
*Melting Point	Not applicable
*Vapour Pressure (@ 20°C)	Not applicable
Vapour Density (101.3 kPa / air=1)	Not applicable
Evaporation Rate (n - Butyl Ether=1)	Not applicable
Lower Flammable Limit LEL / Explosion limit (%)	Not applicable
Upper Flammable Limit UEL / Explosion limit (%)	Not applicable
Solubility	Insoluble in water

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

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

CONDITIONS TO AVOID

Heat, flame, sparks.

Nitric acid, sulfuric acid, strong oxidizing agents.

Electrostatic accumulation hazard? If Yes, use proper grounding procedure.

HAZARDOUS DECOMPOSITION PRODUCTS

When expose to high temperature, may produce hazardous decomposition products such as Carbon monoxide, carbon dioxide, smoke and oxides of nitrogen

SECTION 11 TOXICOLOGY INFORMATION**There is no data available on the product itself.**

Toxicological information of hazardous ingredients :

Acute toxicity /Ketoksikan Akut**Components/ Komponen:****Butyl Acetate:**

Acute oral toxicity	: LD50 (Rat, male): 12,789 mg/kg
	LD50 (Rat, female): 10,760 mg/kg
Acute inhalation toxicity	: LC50 (Rat, male and female): 0.74 mg/l
Acute dermal toxicity	: LD50 (Rabbit): 14,000 mg/kg

Skin corrosion/irritation**Components:**

Butyl Acetate:

Species : Rabbit

Exposure time: 4 h

Result : No skin irritation

Serious eye damage/eye irritation**Components :**

Butyl Acetate:

Species : Rabbit

Result : No eye irritation

Respiratory or skin sensitization**Components:**

Butyl Acetate:

Exposure routes: Inhalation

Exposure routes: Skin contact

Remarks: No data available

Result : Not sensitizing

Germ cell mutagenicity**Components:**

Butyl Acetate:

Germ cell mutagenicity

Assessment: Not mutagenic in vivo and in vitro

Carcinogenicity**Components:**

Butyl Acetate:

Carcinogenicity

Assessment : Not classified

Reproductive toxicity**Components:**

Butyl Acetate:

Reproductive toxicity

Assessment : Not classified

STOT - single exposure**Components:**

Butyl Acetate:

Target Organs : Central Nervous System

Assessment : May cause drowsiness or dizziness

STOT - repeated exposure**Components:**

Butyl Acetate:

Remarks: Not classified

Aspiration toxicity**Components:**

Butyl Acetate:

Statement on Aspiration Tox. : No data available

SECTION 12 ECOLOGICAL INFORMATION**Toxicity**

No data available

Persistence and degradability

No information available.

Bioaccumulative Potential

Has the potential to bioaccumulate.

Mobility In Soil

Floats on water. Adsorbs to soil and has low mobility.

Other Adverse Effects

Do not allow product to reach ground water, water course or sewage system.

Ingredient	Fish 96 hour, LC50 mg/L	Crustacea 48 hour, EC50 mg/L	Algae 72 or 96 hour, ErC50 mg/L
Butyl Acetate	18	44	397

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

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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

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