

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

Intended Use : See Product Data Sheet
Name of Company : Seng Fong Paints Pte Ltd
Address : No 38, Kian Teck Road, Singapore 628788
Telephone : + 65 62640100
Fax : + 65 62640277

2. HAZARDS IDENTIFICATION OF THE PREPARATION

2.1 Product classification according to SS586 Part 2 and Part 3 (2014).

Physical Hazards

Flammable Liquids Category 3

Health Hazards

Acute Toxicity (Dermal)	Category 4
Acute Toxicity (Inhalation)	Category 4
Skin Corrosion /Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitisation	Category 1A
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B
Specific Target Organ Toxicity (Single Exposure)	Category 2 (Central Nervous System)
Specific Target Organ Toxicity (Single Exposure)	Category 3 (Narcotic Effects, Respiratory Tract Irritation)
Specific Target Organ Toxicity (Repeated Exposure)	Category 2 (Central Nervous System, Auditory Organs)
Aspiration Hazard	Category 1

Environmental Hazards

Acute Toxicity	Category 2
Chronic Toxicity	Category 3

2.2 GHS Label Elements

Hazard Pictograms:



Signal Word : DANGER

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

Hazard Statements

H226: Flammable liquid and vapour.
H312: Harmful if in contact with skin.
H332: Harmful if inhaled.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H317: May cause an allergic skin reaction.
H351: Suspected of causing cancer.
H360: May damage fertility or the unborn child.
H371: May cause damage to organs.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H373: May cause damage to organs through prolonged or repeated exposure.
H304: May be fatal if swallowed and enters passageways.
H401: Toxic to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well ventilated areas.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response Statements

P301+P310: If SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P303+P352: If ON SKIN (or hair): Wash with plenty of soap and water.
P303+P361+P353: If ON Skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340: If INHALED: Remove victim to fresh air and keep 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.
P308+P313: If exposed or concerned: Get medical advice/attention.
P312: Call a POISON CENTRE or doctor/physician if you feel unwell.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash before reuse.

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

P370+P378: In case of fire: Use appropriate media for extinction.

Storage Statements

P403+P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

Disposal Statements

P501: Dispose of contents/container in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Weight %
Reaction Mass Of Xylene And Ethyl Benzene	905-588-0 (EC Number)	10 to 25
Solvent Naphtha (Petroleum), Light Aromatic	64742-95-6	2.5 to 10
Aluminium Powder	7429-90-5	2.5 to 10
Cyclohexanone	108-94-1	2.5 to 10
Ethyl Benzene	100-41-1	2.5 to 10
Solvent Naphtha (Petroleum), Medium Aliphatic	64782-88-7	2.5 to 10
n-Butanol	71-36-3	2.5 to 10
Xylene	1330-20-7	1 to 2.5
Solvent Naphtha (petroleum), Heavy Aromatic	64742-94-5	0 to 1
2-Butanone Oxime	96-29-7	0 to 1

*Contains: Cumene; 1,2,3-Trimethyl Benzene; 1,2,4-Trimethyl Benzene; 1,3,5-Trimethyl Benzene.

4. FIRST AID MEASURES

General

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

Eye Contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

Ingestion

If accidentally swallowed, obtain immediate medical attention. Keep at rest . Do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Recommended: Alcohol resistant foam, CO₂, Powders,

Not to be used: Waterjet

Recommendations: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not allow run-off from fire-fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in sections 7 and 8. Contain and collect spillage with non-combustible adsorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Clean preferably with a detergent; avoid use of solvents. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Vapours are heavier than air and may spread along floors. Vapor may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Additionally, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Preparation may charge electrostatically

Always use earthing leads when transferring from one container another. Operators should wear anti-static footwear, and floors should be of the conducting type.

Container Storage

Keep container tightly closed. Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Always keep in containers of same material as the original one. Never use pressure to empty as the container is not a pressure vessel.

Skin And Eye Contact

Avoid skin and eye contact. Avoid inhalation of vapor and spray mist.

Application Areas

Smoking, eating and drinking should be prohibited in application areas. For personal protection see Section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapor in all cases. In such circumstances should wear a compressed aired respirator during the spraying process until such time as the particulates and solvent vapor concentration has fallen below the exposure limits.

Storage

Store in accordance with local rules and legislation. Observe label precautions .Store between 5 and 30°C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep away from sources of ignition. Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures: Provide adequate ventilation. Where reasonably practicable this should be achieved by use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentration of particulates and solvent vapor below the PEL, suitable respiratory protection must be worn.

<u>Ingredient</u>	<u>CAS No</u>	<u>Control Parameters/OEL</u>
Solvent Naphtha (petroleum), light aromatic	64742-95-6	Exxon Mobil (2009) RCP TWA: 19 ppm (100 mg/m ³)
Cyclohexanone	108-94-1	Workplace Safety and Health Act (Singapore, 2/2006) Singapore PEL Long Term: 25 ppm (100 mg/m ³)
Ethyl Benzene	100-41-1	Workplace Safety and Health Act (Singapore, 2/2006) Singapore PEL Long Term : 100 ppm (434 mg/m ³) Singapore PEL Short Term: 125 ppm (543 mg/m ³)
Solvent Naphtha (petroleum), medium aliphatic	64782-88-7	ACGIH (Total Hydrocarbon Vapour) TWA: 200 mg/m ³
n-Butanol	1330-20-7	Workplace Safety and Health Act (Singapore, 2/2006) Singapore PEL Short Term: 50 ppm (152 mg/m ³)
Xylene	1330-20-7	Workplace Safety and Health Act (Singapore, 2/2006). Singapore PEL Long Term: 100 ppm (434 mg/m ³) Singapore PEL Short Term: 150 ppm (651 mg/m ³)
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	Transmare-Chemie (2000) TWA: 17 ppm (100 mg/m ³) CEFIC-HSPA TWA: 100 mg/m ³
1,2,3 – Trimethyl Benzene	526-73-8	Workplace Safety and Health Act (Singapore,2/2006) Singapore PEL Long Term: 25 ppm (123 mg/m ³)

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

1,2,4 -Trimethyl Benzene	95-63-6	Workplace Safety and Health Act (Singapore,2/2006) Singapore PEL Long Term: 25 ppm (123 mg/m ³)
1,3,5 - Trimethyl Benzene	108-67-8	Workplace Safety and Health Act (Singapore,2/2006) Singapore PEL Long Term: 25 ppm (123 mg/m ³)
Cumene	98-82-8	Workplace Safety and Health Act (Singapore,2/2006) Singapore PEL Long Term: 50 ppm (246 mg/m ³)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Liquid
Flash point	:	27°C
Specific gravity at 30°C	:	1.025 to 1.055 g/cm ³ (typical values)
Vapor density	:	Heavier than air
Colour	:	See colour card
Flammable in air (% by volume)	:	Lower limit: 0.6; Upper limit: 12.3
Solubility in water	:	Not miscible with water

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions. (See Section 7) When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smokes, oxides of nitrogen. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself. The toxicity of the following ingredients were used to assess the health hazards of the preparation.

Acute Toxicity

Ingredient	Oral LD50	Skin LD50	Inhalation LC50
Reaction mass of Ethyl Benzene and Xylene	3523 mg/kg Rat	1100 mg/kg Rabbit	11 mg/L (4hr) Rat
Solvent Naphtha (petroleum), Light Aromatic	3592 mg/kg Rat	3160 mg/kg Rabbit	6193 ppm (4hr) Rat
Cyclohexanone	1535 mg/kg Rat	948 mg/kg Rabbit	8000 ppm (4hr) Rat
Ethyl Benzene	2000 mg/kg Rat	>5000 mg/kg Rabbit	10 mg/l (4hr) Rat
Solvent Naphtha (petroleum), Medium aliphatic	>5000 mg/kg Rat	>2000 mg/kg Rabbit	---
n-Butanol	790 mg/kg Rat	--	7.4 mg/l (4hr) Rat

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

Xylene	4000 mg/kg Rat	>2000 mg/kg Rabbit	6350 ppm (4hr) Rat
Solvent Naphtha (petroleum), Heavy aromatic	>5000 mg/kg Rat	>2000 mg/kg Rabbit	5.2 mg/l (4hr) Rat
2-Butanone Oxime	930 mg/kg Rat	1000 mg/kg Rabbit	4.8 mg/l (4hr) Rat

Irritation/Corrosion

Ingredient	Skin Corrosion/Irritation	Serious Eye Damage/Irritation
Reaction mass of Ethyl Benzene and Xylene	Category 2	Category 2
Solvent Naphtha (petroleum), Light Aromatic	Category 2	--
Cyclohexanone	Category 2	Category 1
Ethyl Benzene	Category 2	Category 2
n-Butanol	Category 2	Category 1
Xylene	Category 2	Category 2
Solvent Naphtha (petroleum), Heavy Aromatic	Category 2	---
2-Butanone Oxime	---	Category 1

Respiration/Skin Sensitisation

Ingredient	Respiration Sensitisation	Skin Sensitisation
Solvent Naphtha (petroleum), Heavy Aromatic	---	Category 1
2-Butanone Oxime	---	Category 1

Germ Cell Mutagenicity

Not available

Carcinogenicity

Ingredient	Hazard Classification	Remarks
Ethyl Benzene	Group 2B	IARC – Possible carcinogen to humans
Xylene	Category 2	---
Solvent Naphtha (petroleum), Heavy Aromatic	Category 2	---
2-Butanone Oxime	Category 2	---

Reproductive Toxicity

Ingredient	Hazard Classification	Remarks
Ethyl Benzene	Category 1B	--
Xylene	Category 1B	

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

Solvent Naphtha (petroleum), Heavy Aromatic	Category 1B	---
--	-------------	-----

Specific Target Organ Toxicity Following Single Exposure

Ingredient	Hazard Classification	Target Organs
Reaction mass of Ethyl Benzene and Xylene	Category 3	Respiratory tract irritation
Solvent Naphtha (Petroleum), Light Aromatic	Category 3	May cause drowsiness or dizziness. May be irritating to the respiratory tract.
Ethyl Benzene	Category 2	Central nervous system. May cause respiratory irritation.
Solvent Naphtha (petroleum), Medium Aliphatic	Category 3	Narcotic effects. May cause drowsiness and dizziness.
n-Butanol	Category 3	May cause drowsiness or dizziness. May cause respiratory irritation.
Xylene	Category 2	Central nervous system. May cause respiratory irritation.
Solvent Naphtha (petroleum), Heavy Aromatic	Category 3	Respiratory tract irritation.

Specific Target Organ Toxicity Following Repeated Exposure

Ingredient	Hazard Classification	Target Organs
Reaction mass of Ethyl Benzene and Xylene	Category 2	---
Ethyl Benzene	Category 2	Central nervous system. Auditory organs.
Xylene	Category 2	Central nervous system. Auditory organs.
2-Butanone Oxime	Category 2	

Aspiration Hazard

Ingredient	Hazard Classification	Remarks
Reaction mass of Ethyl Benzene and Xylene	Category 1	Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can fatal.
Solvent Naphtha (petroleum), Light Aromatic	Category 1	Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can fatal.
Ethyl Benzene	Category 2	Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can fatal.
Solvent Naphtha (petroleum), Medium Aliphatic	Category 1	Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can fatal.

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

Xylene	Category 1	Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can fatal.
Solvent Naphtha (petroleum), Heavy Aromatic	Category 1	---

12. ECOLOGICAL INFORMATION

There are no data available on the preparation itself. The product should not be allowed to enter drains or water courses. The toxicity of the ingredients were used to assess the environmental hazards of the preparation.

Toxicity

Ingredient	Results	Species	Exposure
Reaction mass of Ethyl Benzene and Xylene	LC50:2.6-8.4mg	Fish	96 hrs
Solvent Naphtha (Petroleum), Light Aromatic	LC/EC/IC50: 1-10mg/l	Fish	96 hrs
Cyclohexanone	LC50: 527 – 723 mg/l	Fish	96 hrs
Ethyl Benzene	LC/EC/IC50: 1-10mg/l	Fish	---
Solvent Naphtha (petroleum), Medium Aliphatic	LL/EL/IL50: 1-10mg/l	Fish	---
n-Butanol	LC50: >100 mg/l	Fish	96 hrs
Xylene	LC50: 2.6 mg/l	Fish	96hrs
Solvent Naphtha (petroleum), Heavy Aromatic	LL50: 2-5 mg/l	Fish	96 hrs
2-Butanone Oxime	EC50: 750 mg/l	Daphia Magna	48 hrs

Persistence/Degradability

Ingredient	Half-life	Photolysis	Biodegradability
Reaction mass of Ethyl Benzene and Xylene	---	---	Readily
Solvent Naphtha (Petroleum), Light Aromatic	---	---	Readily
Cyclohexanone	---	---	Readily
Ethyl Benzene	---	---	Readily
Solvent Naphtha (petroleum), Medium aliphatic	---	---	Readily
n-Butanol	---	---	Readily
Xylene	---	---	Readily
Solvent Naphtha (petroleum), Heavy Aromatic	---	---	Readily
2-Butanone Oxime	---	---	Persistence is unlikely

Bioaccumulative Potential

Ingredient	Partition Coefficient	BCF	Potential
Reaction mass of Ethyl Benzene and Xylene	Log Kow : 3.16	---	---
Solvent Naphtha (petroleum), Light aromatic	Log Pow : 3.7 -4.5	---	Yes
Cyclohexanone	Log Kow : 0.81	---	Does not significantly
Ethyl Benzene	Log Pow : 3.6	---	Does not significantly
Solvent Naphtha (petroleum), Medium aliphatic	---	---	Yes

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

n-Butanol	---	---	---
Xylene	Log Pow : 3.15	29	Does not significantly
Solvent Naphtha (petroleum), Heavy Aromatic	Log Kow : 3.71	69.88	Yes

Mobility In Soil

Ingredient	Remarks
Reaction mass of Ethyl Benzene and Xylene	Estimated Koc: 537 @ 20°C.
Solvent Naphtha (petroleum), Light Aromatic	Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
Cyclohexanone	No data available.
Ethyl Benzene	If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.
Solvent Naphtha (petroleum), Medium Aliphatic	Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
n-Butanol	No data available.
Xylene	Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
Solvent Naphtha (petroleum), Heavy Aromatic	Expected to be low potential for adsorption to the soil. Estimated Koc: 730.6.

Other Adverse Effects

Not available.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses. Waste and emptied containers should be disposed of according to the local rules and legislation.

14. TRANSPORT INFORMATION

Transport only in accordance with ADR for road, RID for rail and IMDG for sea transport.

ADR/RID

UN Number	1263
Proper Shipping Name	Paint Related Material
Class	3
Packing Group	III
Label	3
Hazard Identification No	30

IMDG

UN Number	1263
Proper Shipping Name	Paint Related Material
Class	3
Packing Group	III

Seng Fong Paints Pte Ltd
Safety Data Sheet

Product Name: Tiger Brand Cold Galvanized Silver Paint (CG208)

Label 3
Emergency Schedules F-E, S-E

15. REGULATORY INFORMATION

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: This product is subject to the SDS, labelling, PEL and other requirements in the Acts/Regulations.

16. OTHER INFORMATION

Selected Abbreviations and Acronyms

ACGIH: American Conference of Governmental Industrial Hygienist

IARC: International Agency For Research On Cancer

HSPA: Hydrocarbon Solvent Producers Association

CEFIC: European Chemical Industry Council

The information of this SDS is based on the present state of our knowledge. As the users' working conditions are beyond our knowledge and control. The product is not to be used for other purpose than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product: it is not be considered as a guarantee of the products' properties.

Prepared/Last Amended On: 28-September-2021.

Valid for 5 years from above date.

This SDS will be amended when necessary based on the latest updates provided by raw material suppliers.