

ACCORDING TO THE OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELLING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATIONS 2013 (CLASS REGULATIONS)

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

1.1 Product identifier

Product Name INDUSTRIAL ENAMEL - 698 ALUMINUM
 Product code IE698
 CAS No. Not applicable.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s) Paint for professional use.
 Uses Advised Against Not known.

1.3 Details of the supplier of the safety data sheet

Company Identification TOA PAINT (M) SDN BHD
 Address of Manufacturer LOT 37625, JALAN 2/37A,
 TAMAN BUKIT MALURI,
 OFF JALAN KEPONG,
 52100 KUALA LUMPUR,
 MALAYSIA.
 Telephone +603-62721346 (Office hours)
 6016-3375428 (After office hours)
 E-mail admin@toapaint.com.my
 Website http://www.toapaint.com.my

1.4 Emergency telephone number

Company +603-62721346 (Office hours)
 6016-3375428 (After office hours)

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Occupational Safety and Health Flam. Liq. 3; Flammable liquid and vapour.
 (Classification, Labelling and Safety Data Carcinogenicity. 1B; May cause cancer.
 Sheet of Hazardous Chemicals Specific Target Organ Toxicity (single exposure). 3
 Regulations 2013 (CLASS Regulations)

2.2 Label elements

Product Name INDUSTRIAL ENAMEL - 698 ALUMINUM
 Product code IE698

Hazard Pictogram(s)



Signal Word(s) Danger.

Hazard Statement(s) H226: Flammable liquid and vapour.
 H335: May Cause Respiratory Irritation

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H336: May Cause Drowsiness or Dizziness

H350: May Cause Cancer

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261: Avoid breathing vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

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

P370+P378: In case of fire: Use polar resistant foam, CO₂ or dry powder to extinguish.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	%W/W	Hazard Statement(s)
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	40-50	Flam. Liq. 3 H226 May Cause Respiratory Irrit H335 May Cause Drowsiness or Dizziness H336 May Cause Cancer H350
Aluminium powder (stabilized)	7429-90-5	5-10	If In contact water, releases flammable gases. 2 H261
2-butanone oxime	96-29-7	1-3	Eye Irrit. 2 H319 Skin Sensation. 1 H317 Respiratory Tract Irrit. 1 H335 Aspiration Hazard. 1 H304

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Remove person to fresh air and keep comfortable for breathing.

Skin Contact Wash with plenty of water/soap. Take off immediately all contaminated clothing and wash it before reuse. Do not use solvents or diluting agents for skin cleaning.
If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact Flush eyes with water for at least 15 minutes while holding eyelids open. If symptoms persist, obtain medical attention.

Ingestion Do not induce vomiting. Seek medical treatment.

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4.2 Most important symptoms/effects, acute and delayed

May cause an allergic skin reaction. Will cause skin irritation.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media Extinguish with carbon dioxide, dry chemical, foam or water spray.

Unsuitable extinguishing media Water jet spray.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Decomposes in a fire giving off toxic fumes:
Carbon monoxide, Carbon dioxide.

5.3 Special protective equipment and precautions for fire fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Dike fire control water for later disposal.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid breathing vapours. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure full personal protection (including respiratory protection) during removal of spillages.

6.2 Environmental precautions

Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Absorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.

6.4 Reference to other sections

See Also Section 8, 13.

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing vapours/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wash hands and exposed skin

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thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Storage temperature	5 – 35 °C
Storage life	Stable under normal conditions.
Incompatible materials	Strong oxidising agents, Alkaline, Acids, Amines.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Not established	Not established	-	-	
2-butanone oxime	96-29-7	Not established	Not established	-	-	

Source: Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

8.2 Exposure controls

8.2.1. Appropriate engineering controls Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Individual protection measures, such as personal protective equipment (PPE)



Eye Protection

Wear protective eye glasses for protection against liquid splashes.



Skin protection

Wear protective clothing and gloves: Impervious gloves.



Respiratory protection

During spraying wear suitable respiratory equipment: Always wear a self-contained breathing apparatus or full-face airline respirator when using this chemical. For operations other than spraying: A suitable mask with filter type A may be appropriate.

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Thermal hazards

Not applicable.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Silver.
Odour	Solvent odour.
Odour threshold	Not established.
pH	Not applicable.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	38 °C
Flash Point	23 °C (DIN 53213/ISO 1523)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Density	0.90 – 1.00 g/cm ³ @ 20°C (DIN 53217/ISO 2811)
Relative density	Not available.
Solubility(ies)	Solubility (Water) : Very slightly soluble. Solubility (Other) : Miscible with most organic solvents.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	268°C (DIN 51794 based on organic solvent content)
Decomposition Temperature (°C)	Not available.
Viscosity	16 s @ 23°C (ASTM D1200)
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated. Mixture reacts slowly with water resulting evolution of carbon dioxide. Evolution of carbon dioxide in closed containers causes overpressure and produces a risk of bursting. Reacts with amines or alcohols which cause exothermic reactions.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

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No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

When exposed to high temperatures may produce hazardous decomposition products

10.5 Incompatible materials

Strong oxidising agents, Alkaline, Acids, Amines.

10.6 Hazardous decomposition products

Decomposition products may include carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Naphtha (petroleum), hydrodesulfurized heavy

Acute toxicity - Oral (rat) LD₅₀ > 5000mg/kg

Acute toxicity - Dermal (rabbit) LD₅₀ > 3160mg/kg

Acute toxicity - Inhalation Not known

2-butanone oxime

Acute toxicity – Oral (rat) LD₅₀ > 3680 mg/kg

Acute toxicity – Dermal (rabbit) LD₅₀ > 1-2 ml/kg

Skin corrosion/irritation

Moderate skin irritation. 24 hours 500mg exposure (rabbit)

Serious eye damage/irritation

Insufficient to classified.

Skin sensitization data

May cause an allergic skin reaction. No data.

Respiratory sensitization data

May cause irritation to the respiratory system.

Germ cell mutagenicity

There is no evidence of mutagenic potential.

Carcinogenicity

No evidence of carcinogenicity.

Reproductive toxicity

None anticipated.

Lactation

Not classified.

STOT - single exposure

Category 3. Narcotic effects

STOT - repeated exposure

Category 1. Central nervous system.

Aspiration hazard

Category 1.

Numerical measures of toxicity

No data available on the mixture itself

(acute toxicity estimation – ATE)

Symptoms related to the physical, chemical and toxicological characteristics Based on the properties of the isocyanate components and considering toxicological data on similar products, the following applies: This formulation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Through skin resorption, solvents can cause some of the effects described here. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Components of the product may be absorbed into the body through the skin.

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12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

	Low toxicity to aquatic organisms.
Toxicity - Crangon crangon (Crustacea)	LC ₅₀ : 4.3mg/L/96hours.
Toxicity - Fish	Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and Degradation

Part of the components are biodegradable.

12.3 Bioaccumulative potential

2-butanone oxime	Low. LogP _{ow} = 0.63	BCF = 5.01
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12.4 Mobility in soil

Very slightly soluble. The product is predicted to have low mobility in soil.

12.5 Other adverse effects

Films formed on water may affect oxygen transfer.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solution and any by-products should at all time comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some products residues. Vapour from product residues may create a highly flammable atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of split materials and runoff and contact with soil, waterways, drains and sewers. Recycle only completely emptied packaging.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN No.	1263
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14.2 UN proper shipping name

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UN proper shipping name PAINT

14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class	3
ADR Classification Code	F1
Special Provisions	163 640D 650
Limited Quantities	5 L
Excepted Quantities	E2
Emergency Action Code	•3YE
Mixed Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	PP1
Mixed Packing Instructions for Packages	MP19
Packing Instructions for Portable Tanks	T4
Special Provisions for Portable Tanks	TP1 TP8 TP28
Tank Code for Tanks	LGBF
Special Provisions for Tanks	Not applicable
Vehicle for Tank Carriage	FL
ADR Transport Category	2
Tunnel Restriction Code	D/E
Special Provisions for Carriage - Packages	Not applicable
Special Provisions for Carriage - Bulk	Not applicable
Special Provisions for Carriage - Loading, Unloading and Handling	Not applicable
Special Provisions for Carriage - Operation	S2 S20
ADR HIN	33
IMDG	
IMDG Class	3
Special Provisions	163 640D 650
Limited Quantities	5 L
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	PP1
Packing Instructions for Portable Tanks	T4
Special Provisions for Portable Tanks	TP1 TP8 TP28
IMDG EMS	F-E,
Stowage and Handling	A
Segregation	Not determined
ICAO/IATA	
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y341
Passenger and Cargo Aircraft Limited	1L

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Quantities Max net Qty

Passenger and Cargo Aircraft Packing 353

Instructions

Passenger and Cargo Aircraft Max net 5L

Qty

Cargo Aircraft Packing Instructions 364

Cargo Aircraft Max net Qty 60L

Special Provisions A72

Emergency Response Guidebook (ERG) 3L

Code

Labels

Labels 3



14.4 Packing group, if applicable

Packing group II

14.5 Environmental hazards

Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Confirm there is no breakage, corrosion, or leakage from the container before shipping. Be sure to prevent damage to cargo by loading so as to avoid falling, dropping, or collapse.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No information available

14.8 Hazchem or Emergency Action Code

No information available

15. SECTION 15: REGULATORY INFORMATION

This SDS has been prepared in accordance to The Industry Code of Practice on Chemical Classification and Hazard Communication 2014 (ICOP) and The Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 (CLASS Regulations).

15.1 Safety, health, and environmental regulations specific for the hazardous chemical in question

Part 1 List of Classified Chemical, ICOP Xylene (1330-20-7)

15.2 National regulations

Not known.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16

LEGEND

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Hazard Pictogram(s)



GHS02

GHS08

Hazard classification

Acute Tox. 4 : Acute toxicity, Category 4
 Flam. Liq. 3 : Flammable liquid, Category 3
 Skin Irrit. 2 : Skin corrosion/irritation, Category 2
 Skin Sens. 1 : Skin sensitization, Category 1

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
 H226: Flammable liquid and vapour.
 H312: Harmful in contact with skin.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H332: Harmful if inhaled.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233: Keep container tightly closed.
 P240: Ground/bond container and receiving equipment.
 P241: Use explosion-proof electrical/ventilating/lighting/equipment.
 P242: Use only non-sparking tools.
 P243: Take precautionary measures against static discharge.
 P261: Avoid breathing vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352: IF ON SKIN: Wash with plenty of water/soap.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P321: Specific treatment (see on this label).
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P370+P378: In case of fire: Use polar resistant foam, CO2 or dry powder to extinguish.
 P403+P235: Store in a well-ventilated place. Keep cool.
 P501: Dispose of contents in accordance with local, state or national legislation.

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
 CAS : Chemical Abstracts Service

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IATA : International Air Transport Association

IBC : Intermediate Bulk Container

ICAO : International Civil Aviation Organisation

IMDG : International Maritime Dangerous Goods

LTEL : Long term exposure limit

RID : Regulations concerning the International Carriage of Dangerous Goods by Rail

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity

UN : United Nations

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