

SECTION 1: Identification of the hazardous chemical and of the supplier

1.1. Product identifier

Name : AS-5400 Bituminous Underseal

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Sealants

1.4. Supplier details

Manufacturer

Alseal Marketing Sdn. Bhd.
 Lot 53, Jalan Industri 2/2,
 Rawang Integrated Industrial Park,
 48000 Rawang, Selangor, Malaysia.
 T +603-60942088 - F +603-60992930
info@alsealmarketing.com

1.5. Emergency phone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Flammable liquids, Category 2	H225
Skin corrosion or irritation, Category 2	H315
Reproductive toxicity, Category 2	H361
Specific target organ toxicity – Repeated exposure, Category 2	H373
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

2.2. Label elements

Labelling according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Hazard pictograms (GHS MY) :



Signal word (GHS MY) :

Danger

Contains :

toluene

Hazard statements (GHS MY) :

- H225 - Highly flammable liquid and vapour.
 - H315 - Causes skin irritation.
 - H361 - Suspected of damaging fertility or the unborn child.
 - H373 - May cause damage to organs through prolonged or repeated exposure.
 - H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements (GHS MY) :
- 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/bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting equipment.

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2.3. Other hazards that do not result in classification

No additional information available

SECTION 3: Composition and information of the ingredients of the hazardous chemical

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)
MINERAL SPIRIT	CAS-No.: 64742-82-1	10 – 30	Flam. Liq. 3, H226 Acute Tox. Not classified (Oral) Asp. Haz., H304 Aquatic Chronic 3, H412
toluene	CAS-No.: 108-88-3	10 – 30	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Haz., H304
rosin; colophony	CAS-No.: 8050-09-7	0,1 – 1	Skin Sens. 1, H317

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact	: Irritation.
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4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Water spray.

5.2. Physicochemical hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Special protective equipment and precautions for fire fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

EAC code : 3YE

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters

toluene (108-88-3)	
Malaysia - Occupational Exposure Limits	
Local name	Toluena (Toluol) # Toluene (Toluol)
PEL TWA (mg/m ³)	188 mg/m ³
PEL TWA (ppm)	50 ppm
MEL (mg/m ³)	564 mg/m ³
MEL (ppm)	150 ppm
Remark (MY)	(kulit # skin)
USA - ACGIH - Occupational Exposure Limits	
Local name	Toluene

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toluene (108-88-3)	
ACGIH TWA (ppm)	20 ppm
Remark (ACGIH)	TLV® Basis: CNS, visual & hearing impair; female repro system eff; pregnancy loss. Notations: OTO; A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	TOLUENE
Biological Exposure Indices (BEI)	0,3 mg/g creatinine Parameter: o-Cresol (with hydrolysis) - Medium: urine - Sampling time: End of shift - Notations: B 0,03 mg/l Parameter: Toluene - Medium: urine - Sampling time: End of shift 0,02 mg/l Parameter: Toluene - Medium: blood - Sampling time: Prior to last shift of workweek
Regulatory reference	ACGIH 2021
rosin; colophony (8050-09-7)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m³)	≈ 0,05 mg/m³
WEL STEL (mg/m³)	≈ 0,15 mg/m³

Exposure limit values for the other components

No additional information available

8.1.1 Biological monitoring

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.3. Individual protection measures, such as PPE

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



Environmental exposure controls : Avoid release to the environment.

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SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Black
Odour	: aromatic
Odour threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Explosive limits	: No data available
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: ≈ 1,09
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: > 40 mm ² /s
Viscosity, dynamic	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport
Chemical stability	: Stable under normal conditions
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use
Conditions to avoid	: None under recommended storage and handling conditions (see section 7)
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

toluene (108-88-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat	> 20 mg/l/4h

MINERAL SPIRIT (64742-82-1)	
LD50 oral rat	> 5000 mg/kg

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory sensitization	: Not classified
Skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified

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toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
toluene (108-88-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified.
AS-5400 Bituminous Underseal	
Viscosity, kinematic	> 40 mm ² /s

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

AS-5400 Bituminous Underseal	
Persistence and degradability	No additional information available

12.3. Bioaccumulative potential

AS-5400 Bituminous Underseal	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

AS-5400 Bituminous Underseal	
Mobility in soil	No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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SECTION 14: Transportation information

In accordance with IMDG / IATA / UN RTDG

14.1. UN number

UN-No.(UN RTDG)	: 1294
UN-No. (IMDG)	: 1294
UN-No. (IATA)	: 1294

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14.2. UN proper shipping name

Proper Shipping Name (UN RTDG)	: TOLUENE
Proper Shipping Name (IMDG)	: TOLUENE
Proper Shipping Name (IATA)	: Toluene
Transport document description (UN RTDG)	: UN 1294 TOLUENE, 3, II
Transport document description (IMDG)	: UN 1294 TOLUENE, 3, II (7°C c.c.)
Transport document description (IATA)	: UN 1294 Toluene, 3, II

14.3. Transport hazard class(es)

UN RTDG

Transport hazard class(es) (UN RTDG)	: 3
Danger labels (UN RTDG)	: 3
:	:



IMDG

Transport hazard class(es) (IMDG)	: 3
Danger labels (IMDG)	: 3
:	:



IATA

Transport hazard class(es) (IATA)	: 3
Danger labels (IATA)	: 3
:	:



14.4. Packing Group, if applicable

Packing group (UN RTDG)	: II
Packing group (IMDG)	: II
Packing group (IATA)	: II

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not applicable

14.7. Special precautions for user

UN RTDG

Limited quantities (UN RTDG)	: 1L
Excepted quantities (UN RTDG)	: E2
Packing instruction (UN RTDG)	: P001, IBC02
Portable tank and bulk container special instructions (UN RTDG)	: T4
Portable tank and bulk container special provisions (UN RTDG)	: TP1

IMDG

Limited quantities (IMDG)	: 1 L
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Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG)	: B
Flash point (IMDG)	: 7°C c.c.
Properties and observations (IMDG)	: Colourless liquid with a benzene-like odour. Flashpoint: 7°C c.c. Explosive limits: 1.27% to 7% Immiscible with water.

IATA

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
ERG code (IATA)	: 3L

14.8. Hazchem or Emergency Action Code

EAC code : 3YE.

SECTION 15: Regulatory information

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

AS-5400 Bituminous Underseal		
Regulation		Component/ Mixture
Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993	Not applicable	AS-5400 Bituminous Underseal
Environmental Quality (Industrial Effluent) Regulations 2009		AS-5400 Bituminous Underseal
Environmental Quality (Scheduled Wastes) Regulations 2007		AS-5400 Bituminous Underseal
Control of Industrial Major Accident Hazards Regulations 1996		AS-5400 Bituminous Underseal
Prohibition of Use of Substance Order 1999		AS-5400 Bituminous Underseal
Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000		AS-5400 Bituminous Underseal
Chemical Weapons Convention Act		AS-5400 Bituminous Underseal
Corrosive and Explosive Substances and Offensive Weapons Act		AS-5400 Bituminous Underseal
Dangerous Drugs Act		AS-5400 Bituminous Underseal
Pesticides Act		AS-5400 Bituminous Underseal
Petroleum (Safety Measures) Act	List of petroleum	AS-5400 Bituminous Underseal
Poisons Act 1952	Not applicable	AS-5400 Bituminous Underseal
Poisons (Psychotropic Substances) Regulations 1989		AS-5400 Bituminous Underseal

15.2. International agreements

No additional information available

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SECTION 16: Other information

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Abbreviations and acronyms : CAS-No. - Chemical Abstract Service number
ATE - Acute Toxicity Estimate
EC50 - Median effective concentration
EC-No. - European Community number
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Median lethal concentration
LD50 - Median lethal dose
LOAEL - Lowest Observed Adverse Effect Level
N.O.S. - Not Otherwise Specified
NOAEC - No-Observed Adverse Effect Concentration
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
OEL - Occupational Exposure Limit
SDS - Safety Data Sheet

Full text of H-statements

Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified
Acute Tox. Not classified (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Not classified
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified
Asp. Haz.	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), Malaysia

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.