

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form : Mixture  
Product name : AS-1225 Contact Adhesive  
UN-No. (ADR) : 1133  
Product group : Trade product

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Adhesives  
Recommended use : Adhesives

#### 1.4. Supplier's 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

#### 1.5. Emergency phone number

No additional information available

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Flammable liquids, Category 2	H225	On basis of test data
Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 2	H319	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Reproductive toxicity, Category 2	H361	Calculation method
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336	Calculation method
Specific target organ toxicity – Repeated exposure, Category 2	H373	Calculation method
Aspiration hazard Not classified		Calculation method
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Highly flammable liquid and vapour, Suspected of damaging fertility or the unborn child, May cause damage to organs through prolonged or repeated exposure, May cause drowsiness or dizziness, Causes skin irritation, May cause an allergic skin reaction, Causes serious eye irritation, Very toxic to aquatic life with long lasting effects.

#### 2.2. GHS Label elements, including precautionary statements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN) :



Signal word (GHS UN) : Danger

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according to the United Nations GHS (Rev. 9, 2021)

Hazardous ingredients	: cyclohexane; butanone; ethyl methyl ketone; NAPHTHA (PETROLEUM), HYDROTREATED LIGHT; P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN
Hazard statements (GHS UN)	: H225 - Highly flammable liquid and vapour H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness H361 - Suspected of damaging fertility or the unborn child (Inhalation) H373 - May cause damage to organs (nervous system) through prolonged or repeated exposure (Inhalation) H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS UN)	: P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P103 - Read carefully and follow all instructions. P203 - Obtain, read and follow all safety instructions before use. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed.

### 2.3. Other hazards which do not result in classification

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
cyclohexane	CAS-No.: 110-82-7	10 – 30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
butanone; ethyl methyl ketone	CAS-No.: 78-93-3	10 – 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT	CAS-No.: 64742-49-0	10 – 30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN	CAS-No.: 25085-50-1	1 – 10	Skin Sens. 1, H317

Full text of H-statements: see section 16

## 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	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

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- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- 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 : May cause drowsiness or dizziness.
- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

## 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. Specific hazards arising from the chemical

- Fire hazard : Highly flammable liquid and vapour.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective actions for fire-fighters

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

## 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. No open flames, no sparks, and no smoking. 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

- For containment : Collect spillage.
- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### cyclohexane (110-82-7)

###### EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Cyclohexane
IOELV TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC

###### USA - ACGIH - Occupational Exposure Limits

Local name	Cyclohexane
ACGIH TWA (ppm)	100 ppm
Remark (ACGIH)	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2021

##### butanone; ethyl methyl ketone (78-93-3)

###### EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Butanone
IOELV TWA (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
IOELV STEL (mg/m <sup>3</sup> )	900 mg/m <sup>3</sup>
IOELV STEL (ppm)	300 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

###### USA - ACGIH - Occupational Exposure Limits

Local name	Methyl ethyl ketone (MEK)
ACGIH TWA (ppm)	200 ppm
ACGIH STEL (ppm)	300 ppm
Remark (ACGIH)	TLV® Basis: URT irr; CNS & PNS impair. Notations: BEI
Regulatory reference	ACGIH 2021

###### USA - ACGIH - Biological Exposure Indices

Local name	METHYL ETHYL KETONE
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<b>butanone; ethyl methyl ketone (78-93-3)</b>	
Biological Exposure Indices (BEI)	2 mg/l Parameter: Methyl ethyl ketone - Medium: urine - Sampling time: End of shift - Notations: Ns
Regulatory reference	ACGIH 2021
<b>NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Cyclohexane
IOELV TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Cyclohexane
ACGIH TWA (ppm)	100 ppm
Remark (ACGIH)	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2021
<b>USA - ACGIH - Biological Exposure Indices</b>	
Local name	n-HEXANE
Biological Exposure Indices (BEI)	0.5 mg/l Parameter: 2,5-Hexanedione (without hydrolysis) - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2021

Exposure limit values for the other components

<b>n-hexane (110-54-3)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	n-Hexane
IOELV TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	n-Hexane
ACGIH TWA (ppm)	50 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; peripheral neuropathy; eye irr. Notations: Skin; BEI
Regulatory reference	ACGIH 2021
<b>USA - ACGIH - Biological Exposure Indices</b>	
Local name	n-HEXANE
Biological Exposure Indices (BEI)	0.5 mg/l Parameter: 2,5-Hexanedione (without hydrolysis) - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2021

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

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

Hand protection : Protective gloves

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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)



## 8.4. Exposure limit values for the other components

n-hexane (110-54-3)		
EU	Local name	n-Hexane
EU	IOELV TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
USA - ACGIH	Local name	n-Hexane
USA - ACGIH	ACGIH TWA (ppm)	50 ppm
USA - ACGIH	Remark (ACGIH)	TLV® Basis: CNS impair; peripheral neuropathy; eye irr. Notations: Skin; BEI

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state : Liquid  
Colour : Pale yellow.  
Odour : Characteristic.  
Odour threshold : Not available  
Melting point : Not applicable  
Freezing point : Not available  
Boiling point : > 68 °C  
Flammability : Highly flammable liquid and vapour.  
Lower explosion limit : Not available  
Upper explosion limit : Not available  
Flash point : < 23 °C  
Auto-ignition temperature : No data available  
Decomposition temperature : Not available  
pH : Not applicable  
pH solution : Not available  
Viscosity, kinematic (calculated value) (40 °C) : > 40 mm<sup>2</sup>/s  
Partition coefficient n-octanol/water (Log Kow) : Not available  
Vapour pressure : Not available  
Vapour pressure at 50°C : Not available  
Density : Not available  
Relative density : ≈ 0.82  
Relative vapour density at 20°C : No data available  
Solubility : Not available  
Viscosity, dynamic : 3800 – 4800 cP  
Particle size : Not applicable

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapour.

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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. 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

#### butanone; ethyl methyl ketone (78-93-3)

LD50 oral rat	≈ 2193 mg/kg
Skin corrosion/irritation	: Causes skin irritation. pH: Not applicable
Serious eye damage/irritation	: Causes serious eye irritation. pH: Not applicable
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child (Inhalation).
STOT-single exposure	: May cause drowsiness or dizziness.

#### cyclohexane (110-82-7)

STOT-single exposure	May cause drowsiness or dizziness.
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#### butanone; ethyl methyl ketone (78-93-3)

STOT-single exposure	May cause drowsiness or dizziness.
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#### NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0)

STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs (nervous system) through prolonged or repeated exposure (Inhalation).

#### NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified.

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Viscosity, kinematic	> 40 mm <sup>2</sup> /s
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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.  
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.  
Classification procedure (Hazardous to the aquatic environment, short-term (acute)) : Calculation method  
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.  
Classification procedure (Hazardous to the aquatic environment, long-term (chronic)) : Calculation method

#### 12.2. Persistence and degradability

AS-1225 Contact Adhesive	
Persistence and degradability	No additional information available

#### 12.3. Bioaccumulative potential

AS-1225 Contact Adhesive	
Bioaccumulative potential	No additional information available

#### 12.4. Mobility in soil

AS-1225 Contact Adhesive	
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 considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Additional information : Flammable vapours may accumulate in the container.

### SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

UN RTDG	IMDG	IATA
<b>14.1. UN number</b>		
1133	1133	1133
<b>14.2. UN Proper Shipping Name</b>		
ADHESIVES (containing flammable liquid)	ADHESIVES (containing flammable liquid)	Adhesives (containing flammable liquid)
<b>Transport document description</b>		
UN 1133 ADHESIVES (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES (containing flammable liquid), 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1133 Adhesives (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS



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UN RTDG	IMDG	IATA
<b>14.3. Transport hazard class(es)</b>		
3	3	3
<b>14.4. Packing group</b>		
II	II	II
<b>14.5. Environmental hazards</b>		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		

### 14.6. Special precautions for user

#### UN RTDG

Limited quantities (UN RTDG)	: 5L
Excepted quantities (UN RTDG)	: E2
Packing instruction (UN RTDG)	: P001, IBC02
Special packing provisions (UN RTDG)	: PP1
Portable tank and bulk container special instructions (UN RTDG)	: T4
Portable tank and bulk container special provisions (UN RTDG)	: TP1, TP8

#### IMDG

Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP8
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
Properties and observations (IMDG)	: Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility with water depends upon their composition.

#### 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
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L

### 14.7. Transport in bulk according to IMO instruments

Not applicable

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### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

### SECTION 16: Other information

Issue date : 8/6/2021  
Revision date : 4/11/2023  
Supersedes : 3/25/2022

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:

Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), UN

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.