# AS-1225 Contact Adhesive

Safety Data Sheet

according to ICOP 2014,2019
Issue date: 19.11.2020 Revision date: 11.04.2023 Supersedes: 25.03.2022 Version: 3.0

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

### 1.1. Product identifier

Name : AS-1225 Contact Adhesive

### 1.2. Other means of identification

No additional information available

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

Recommended use : Adhesives

### 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 |
| Serious eye damage or eye irritation, Category 2 | H319 |
| Skin sensitisation, Category 1 | H317 |
| Reproductive toxicity, Category 2 | H361 |
| Specific target organ toxicity – Single exposure, Category 3, Narcosis | H336 |
| Specific target organ toxicity – Repeated exposure, Category 2 | H373 |
| Hazardous to the aquatic environment – Acute Hazard, Category 1 | H400 |
| Hazardous to the aquatic environment – Chronic Hazard, Category 1 | H410 |

### 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 : cyclohexane; butanone; ethyl methyl ketone; NAPHTHA (PETROLEUM), HYDROTREATED LIGHT; P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN

Hazard statements (GHS MY) : 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. (if inhaled).
H373 - May cause damage to organs (nervous system) through prolonged or repeated

| | | |
|---|---|---|
| | | exposure (if inhaled).<br>H410 - Very toxic to aquatic life with long lasting effects. |
| Precautionary statements (GHS MY) | : | P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P233 - Keep container tightly closed.<br>P240 - Ground/bond container and receiving equipment.<br>P241 - Use explosion-proof electrical/ventilating/lighting equipment. |

### 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) |
|---|---|---|---|
| cyclohexane | CAS-No.: 110-82-7 | 10 – 30 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>STOT SE 3, H336<br>Asp. Haz., H304<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |
| butanone; ethyl methyl ketone | CAS-No.: 78-93-3 | 10 – 30 | Flam. Liq. 2, H225<br>Acute Tox. Not classified (Oral)<br>Eye Irrit. 2, H319<br>STOT SE 3, H336 |
| NAPHTHA (PETROLEUM), HYDROTREATED LIGHT | CAS-No.: 64742-49-0 | 10 – 30 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Repr. 2, H361f<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Asp. Haz., H304<br>Aquatic Chronic 2, H411 |
| P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN | CAS-No.: 25085-50-1 | 1 – 10 | 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 | : | Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. |
| 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

Other medical advice or treatment : 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. Physicochemical 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 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. 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.

## 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 and personal protection

### 8.1. Control parameters

| cyclohexane (110-82-7) | |
|---|---|
| **Malaysia - Occupational Exposure Limits** | |
| Local name | Sikloheksana # Cyclohexane |
| PEL TWA (mg/m³) | 1030 mg/m³ |
| PEL TWA (ppm) | 300 ppm |
| MEL (mg/m³) | 3090 mg/m³ |
| MEL (ppm) | 900 ppm |
| **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) | |
|---|---|
| **Malaysia - Occupational Exposure Limits** | |
| Local name | Metil etil keton (MEK) (2-Butanon) # Methyl ethyl ketone (MEK) (2-Butanone) |
| PEL TWA (mg/m³) | 590 mg/m³ |
| PEL TWA (ppm) | 200 ppm |
| MEL (mg/m³) | 1770 mg/m³ |
| MEL (ppm) | 600 ppm |
| **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 |
| Biological Exposure Indices (BEI) | 2 mg/l Parameter: Methyl ethyl ketone - Medium: urine - Sampling time: End of shift - Notations: Ns |
| Regulatory reference | ACGIH 2021 |

| NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0) | |
|---|---|
| **Malaysia - Occupational Exposure Limits** | |
| Local name | Sikloheksana # Cyclohexane |
| PEL TWA (mg/m³) | 1030 mg/m³ |
| PEL TWA (ppm) | 300 ppm |

| NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0) | |
|---|---|
| MEL (mg/m³) | 3090 mg/m³ |
| MEL (ppm) | 900 ppm |
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Cyclohexane |
| ACGIH TWA (ppm) | 100 ppm |
| Remark (ACGIH) | TLV® Basis: CNS impair |
| Regulatory reference | ACGIH 2021 |
| **USA - ACGIH - Biological Exposure Indices** | |
| 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**

| n-hexane (110-54-3) | | |
|---|---|---|
| **Malaysia - Occupational Exposure Limits** | | |
| Local name | n-Heksana # n-Hexane | |
| PEL TWA (mg/m³) | 176 mg/m³ | |
| PEL TWA (ppm) | 50 ppm | |
| MEL (mg/m³) | 528 mg/m³ | |
| MEL (ppm) | 150 ppm | |
| Remark (MY) | (kulit # skin) | |
| **USA - ACGIH - Occupational Exposure Limits** | | |
| 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 | |
| **USA - ACGIH - Biological Exposure Indices** | | |
| 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 | |

### 8.1.1 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.

## SECTION 9: Physical and chemical properties

| | | |
| --- | --- | --- |
| Physical state | : | Liquid |
| Appearance | : | No data available |
| Colour | : | Pale yellow |
| Odour | : | Characteristic |
| Odour threshold | : | No data available |
| pH | : | Not applicable |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | > 68 °C |
| Flash point | : | < 23 °C |
| 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 | : | ≈ 0,82 |
| 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 mm²/s |
| Viscosity, dynamic | : | 3800 – 4800 cP |

## SECTION 10: Stability and reactivity

| | | |
| --- | --- | --- |
| Reactivity | : | Highly flammable liquid and vapour. |
| Chemical stability | : | Stable under normal conditions |
| Possibility of hazardous reactions | : | No dangerous reactions known under normal conditions of use |
| Conditions to avoid | : | Avoid contact with hot surfaces,Heat,No flames, no sparks. Eliminate all sources of ignition |
| 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

| 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.
Respiratory sensitization : Not classified
Skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility. (if inhaled).
STOT-single exposure : May cause drowsiness or dizziness.

| cyclohexane (110-82-7) | |
|---|---|
| STOT-single exposure | May cause drowsiness or dizziness. |

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

| 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 (if inhaled).

| NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0) | |
|---|---|
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

Aspiration hazard : Not classified.

| AS-1225 Contact Adhesive | |
|---|---|
| Viscosity, kinematic | > 40 mm²/s |

## SECTION 12: Ecological information

### 12.1. Ecotoxicity

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

### 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 information

### 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: Transportation information

In accordance with IMDG / IATA / UN RTDG

### 14.1. UN number

UN-No.(UN RTDG) : 1133
UN-No. (IMDG) : 1133
UN-No. (IATA) : 1133

### 14.2. UN proper shipping name

Proper Shipping Name (UN RTDG) : ADHESIVES (containing flammable liquid)
Proper Shipping Name (IMDG) : ADHESIVES (containing flammable liquid)
Proper Shipping Name (IATA) : Adhesives (containing flammable liquid)
Transport document description (UN RTDG) : UN 1133 ADHESIVES (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG) : UN 1133 ADHESIVES (containing flammable liquid), 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA) : UN 1133 Adhesives (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS

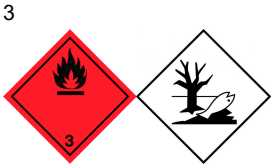
### 14.3. Transport hazard class(es)

#### 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 | : | Yes |
| Marine pollutant | : | Yes |
| 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) | : | 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 |

## 14.8. 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-1225 Contact Adhesive | | |
|---|---|---|
| **Regulation** | | **Component/ Mixture** |
| Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993 | Not applicable | AS-1225 Contact Adhesive |
| Environmental Quality (Industrial Effllluent) Regulations 2009 | | AS-1225 Contact Adhesive |
| Environmental Quality (Scheduled Wastes) Regulations 2007 | | AS-1225 Contact Adhesive |
| Control of Industrial Major Accident Hazards Regulations 1996 | | AS-1225 Contact Adhesive |
| Prohibition of Use of Substance Order 1999 | | AS-1225 Contact Adhesive |
| Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000 | | AS-1225 Contact Adhesive |
| Chemical Weapons Convention Act | | AS-1225 Contact Adhesive |
| Corrosive and Explosive Substances and Offensive Weapons Act | | AS-1225 Contact Adhesive |
| Dangerous Drugs Act | | AS-1225 Contact Adhesive |
| Pesticides Act | | AS-1225 Contact Adhesive |
| Petroleum (Safety Measures) Act | | AS-1225 Contact Adhesive |
| Poisons Act 1952 | | AS-1225 Contact Adhesive |
| Poisons (Psychotropic Substances) Regulations 1989 | | AS-1225 Contact Adhesive |

### 15.2. International agreements

No additional information available

## SECTION 16: Other information

Version : 3.0
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Revision date : 11.04.2023
Supersedes : 25.03.2022

| Full text of H-statements | |
|---|---|
| Acute Tox. Not classified (Oral) | Acute toxicity (oral) Not classified |
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| Asp. Haz. | Aspiration hazard, Category 1 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| 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. |

| Full text of H-statements | |
|---|---|
| H361 | Suspected of damaging fertility or the unborn child. |
| H361f | Suspected of damaging fertility. |
| 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), 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.