# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY


| | | | |
|---|---|---|---|
| PERMOSEAL (PTY) LTD | | Tel. | +27 (0)21 555-7400 |
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|---|---|---|---|
| **TRADE NAME** | **ALCOLIN PVC WELD** | Chemical abstract no. | Mixture |
| Chemical family | Vinyl chloride adhesive | NIOSH no. | Unknown |
| Chemical name | Mixture | Hazchem code | 3Y |
| Synonyms | None | UN no. | 1133 |

## 2. COMPOSITION / INFORMATION OF INGREDIENTS

| Ingredient | CAS No. | Approx. (%) | Hazard Classification & Risk Phrases | EEC No |
|---|---|---|---|---|
| Acetone | 67-64-01 | 25-40 | R11, R38, R41, R51 | 606-001-00-8 |
| Methyl Ethyl Ketone | 78-93-1 | 25-40 | R11, R36/37 | 606-002-00-3 |

## 3. HAZARDS IDENTIFICATION

| | |
|---|---|
| Main hazard: | Highly flammable |
| Health effects: Eyes | Irritant to eyes |
| Health effects: Skin | Irritant on skin, defatting agent and prolonged contact may cause dryness of skin |
| Health effects: Ingestion | Hazardous – may be fatal if swallowed |
| Health effects: Inhalation | Hazardous – vapours cause drowsiness/dizziness, disorientation and/or vertigo. High concentrations of gas/vapours cause asphyxia and narcosis. Respiratory system irritant |

## 4. FIRST- AID MEASURES

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| Product in eyes | Remove any contact lenses from the eyes before rinsing thoroughly with plenty of water (lift eye lids). Rinse for at least 15 minutes. Seek medical attention if any discomfort continues |
| Product on skin | Wash skin with soap and water – do not use solvents! Seek medical attention if irritation persists |
| Product ingested | Never make an unconscious person vomit or drink fluids. Get the affected person to drink a lot of water in small gulps. Do not induce vomiting. Seek medical attention if discomfort continues |
| Product inhaled | Move to fresh air and seek medical if nausea and dizziness persists. Aspiration into lungs may lead to pneumonitis |

## 5. FIRE-FIGHTING MEASURES

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| Extinguishing media | Water, dry chemical powder, foam, carbon dioxide or sand |
| Special hazards | In case of fire, hazardous combustion-gases are formed – CO. Toxic vapours may be released. Cool containers exposed to flames with water until well after the fire is out. Vapour accumulation could flash and/or explode if ignited. Under certain conditions of combustion traces of other toxic substances cannot be excluded. Flammable vapours may form explosive mixture with air. |
| Protective clothing | In case of fire, wear respiratory protection such as NIOSH approved breathing equipment |

## 6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear NISOH approved self contained breathing apparatus. Spill surface may be slippery |
| Environmental precautions | Avoid contamination of ground and water surfaces |
| Small spills | If recovery is not feasible, absorb with dry sand, soil or non-reactive absorbent material or coagulate by sprinkling sodium chloride over the spill. If product has dried, scrape off the ground. Place in a container suitable for disposal |
| Large spills | Stop leak if without risk. Ventilate area. Prevent entry into drains or sewers. Clean as per small spills |

## 7. HANDLING AND STORAGE

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|---|---|
| Suitable material | Steel container lined with polyethylene or polypropylene, polyethylene, PVC containers |
| Storage precautions | Keep product in a sealed container at temperatures between 5 and 30℃. Minimize contact with atmosphere to reduce solvent evaporation. Avoid heat, sparks, open flames and static charge. |

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational exposure limits

| Name | TWA - 8 hrs | STEL - 15 min |
|---|---|---|
| Acetone | 750ppm | 1500ppm |
| Methyl Ethyl Ketone | 200ppm | 300ppm |

| | |
|---|---|
| Engineering controls | Provide good ventilation when handling large quantities. No special measures are required if stored and handled as above. Ventilation must be explosive proof |
| Respiratory Protection | Not required under normal conditions of use in a well-ventilated space |
| Hand Protection | Rubber gloves should be used if there is a risk of direct contact onto skin |
| Eye Protection | Safety glasses |
| Skin Protection | Observe the usual precautions when handling chemicals. Remove soiled or soaked clothing immediately |
| Other Protection | Wash hands at the end of each work shift and before eating |

## 9. PHYSICAL PROPERTIES

- Appearance — Clear, colourless viscous liquid
- Odour — Aromatic
- pH — n/a
- Boiling point — 56℃ @ 760mmHg
- Flash point — -9℃
- Flammability limits (%) — 1.3 - 12
- Autoflammability (℃) — 537
- Vapour Pressure (@20℃) — 200mbar
- Density (g/cm$^3$ @ 20℃) — Approx 0.96
- Solubility water — Insoluble
- Solubility solvent — Soluble in esters, ketones and Methanol

## 10. STABILITY AND REACTIVITY

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|---|---|
| Conditions to avoid | Prolonged exposure to air will result in solvent evaporation and gellation of product. Avoid temperature extremes: below 5℃ and above 30℃ |
| Incompatible materials | Organic solvents, strong acids, strong alkalis, salts. Reactive with oxidising agents |
| Hazardous decomposition products | Carbon Monoxide and Carbon Dioxide |

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| Acute toxicity | Acute oral toxicity (LD50) : 5800mg/kg [rat]<br>Acute dermal toxicity (LD50) : 20000mg/kg [rabbit]<br>Acute toxicity of the vapour (LC50) : 2982.6ppm 4 hour(s) [rat] |
| Skin and eye contact | Irritant to skin and eyes. It may be absorbed through skin causing systematic toxicity |
| Chronic toxicity | The substance is toxic to blood, kidneys, lungs, liver. The substance is not toxic to the nervous system. |
| Carcinogenicity | Carcinogenic Effects: Classified NONE by NTP, NONE by OSHA, NONE by MAK. Cannot be classified. A4 (Not classifiable for human or animal) by ACGIH, D (Not classifiable for human or animal) by EPA. |
| Mutagenicity | Teratogenic Effects: Classified NONE for human. |
| Reproductive hazards | Developmental Toxicity: Not toxic.<br>* *the above information is based on available safety data for Acetone* |

## 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| Aquatic toxicity – fish | May be slightly toxic to aquatic life. No food chain concentration potential.<br>LD50 Fish : > 1000ppm / 96 hr |
| Aquatic toxicity – daphnia | unknown |
| Aquatic toxicity – algae | EC50: 1000 – 10000ppm Algae growth inhibition. (Sasol results – OECD 201 method). |
| Biodegradability | Biodegradable from OECD |
| Bio-accumulation | Unknown |
| Mobility | Not available |
| German wgk | Unknown<br>* *the above information is based on available safety data for Acetone* |

## 13. DISPOSIBLE CONSIDERATIONS

| | |
|---|---|
| Disposal methods | Whatever cannot be saved for recovery or recycling should be handled according to current local waste disposal legislation. Do not allow to enter drains or sewers. Do not allow to enter any body of water |
| Disposal of packaging | Contaminated packaging should be emptied as far as possible and after appropriate cleaning may be taken for reuse or disposed of in approved facility in accordance with current local legislation |

## 14. TRANSPORT REGULATIONS

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|---|---|
| UN no. | 1133 flammable liquid mixture, NOS |
| Substance identity no. | 1133 |
| Danger Symbols | F, Xi |
| **(Land)** ADR/RID class | Class 3 : Flammable liquids |
| ADR/RID item no. | 3.5c |
| ADR/RID hazard identity no. | 33 |
| IMDG – class | 3.2 |
| IMDG – packaging group | III |
| IMDG – EMS no. | 3-05 |
| IATA – class | III |

## 15. REGULATORY INFORMATION

| | |
|---|---|
| EEC hazard classification | Unknown |
| Risk phrases | R11, R36/37 |
| Safety phrases | S(2),9,16,23, 25, 33 |
| National legislation | n/a |

## 16. OTHER INFORMATION

For intended use and applications see the Technical Date Sheet for the product. The information provided in this Material Safety Data Sheet is based on the present state of our knowledge. This data is intended to enable safety assessments to be made and should not be construed as guaranteeing specific properties. Recipients of our product must take responsibility for observing existing laws and regulations

| | | |
|---|---|---|
| Risk Phrases | R10 | Flammable. |
| | R11 | Highly flammable. |
| | R12 | Extremely flammable. |
| | R20/21 | Harmful by inhalation and in contact with skin. |
| | R36 | Irritating to eyes. |
| | R38 | Irritating to skin. |
| | R48/20 | Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| | R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | R62 | Possible risk of impaired fertility. |
| | R65 | Harmful: may cause lung damage if swallowed. |
| | R66 | Repeated exposure may cause skin dryness or cracking. |
| | R67 | Vapours may cause drowsiness and dizziness. |
| Safety Phrases | S9 | Keep container in a well-ventilated place. |
| | S16 | Keep away from sources of ignition - No smoking. |
| | S24 | Avoid contact with skin. |
| | S36/37/39 | Wear suitable protective clothing, gloves and eye/face protection. |
| | S51 | Use only in well-ventilated areas. |
| | S57 | Use appropriate containment to avoid environmental contamination. |
| | S60 | This material and its container must be disposed of as hazardous waste. |
| | S61 | Avoid release to the environment. Refer to special instructions/safety data sheets. |
| | S2 | Keep out of the reach of children |