1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
  - **Trade name:** ACRYLDINE A
  - **Registration number:** Not available
  - **Application of the substance / the preparation:** Adhesive For Plastic
  - **Manufacturer/Supplier:** SHINKO PLASTICS CO., LTD.
    NO.5-24, MINAMISUNA 1-CHOME KOTO-KU, TOKYO 136-0076 JAPAN
    TEL: +81-3-3645-8106
    FAX: +81-3-3645-5322
  - **Further information obtainable from:** SHINKO PLASTICS CO., LTD.
  - **Information in case of emergency:**
    - Mr. Tomohiro Yamashita
    - TEL: +81-3-3645-8106
    - Email: yamashita@shinkopla.co.jp
  - **Reference Number:** SCATR1003000896; GZ1003018057/CHEM

2 Hazards identification

- **Hazard description:**
  - Xn Harmful

- **Information concerning particular hazards for human and environment:**
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - **R 40 Limited evidence of a carcinogenic effect.**

- **Classification system:**
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **GHS label elements:**
  - **Warning**
    - H351 - Suspected of causing cancer.
  - **Prevention:**
    - P281 Use personal protective equipment as required.
    - P201 Obtain special instructions before use.
    - P202 Do not handle until all safety precautions have been read and understood.
  - **Response:**
    - P308+P313 IF exposed or concerned: Get medical advice/attention.
  - **Storage:**
    - P405 Store locked up.
  - **Disposal:**
    - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Additional information:**
    - Important! This product contains substances that are of restricted use under Annex XVII of Regulation(EC) No. 1907/2006. For details, please refer to Section 15 and 16 of this Safety Data Sheet.

3 Composition/information on ingredients

- **Chemical characterization**
  - **Description:**
    Mixture of the substances listed below with nonhazardous additions.
    For the wording of listed risk phrases refer to section 16.
Trade name: ACRYLDINE A

Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>EU number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>200-838-9</td>
<td>602-004-00-3</td>
<td>95.6%</td>
</tr>
<tr>
<td>108-88-3</td>
<td>203-625-9</td>
<td>601-021-00-3</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Dichloromethane
Carc. Cat. 3; Xn; R 40
Warning: 3.6/2

Toluene
Repr. Cat. 3; Xn, Xi, F; R 11-38-48/20-63-65-67
Danger: 2.6/2; 3.10/1, 3.7/2, 3.9/2
Warning: 3.2/2, 3.8/3

Non-dangerous components:

9011-14-7 Polymethyl methacrylate

Remark:
Polymethyl methacrylate (CAS No.: 9011-14-7)
Synonym: Methyl Methacrylate Polymer

First aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

Fire-fighting measures

- Suitable extinguishing agents: CO₂ powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Protective equipment: Wear fully protective suit.

Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- Additional information: See Section 7 for information on safe handling.

Handling and storage

- Handling
Information for safe handling:
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

- Storage
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Store away from foodstuffs.

Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
Ingredients with limit values that require monitoring at the workplace:

75-09-2 dichloromethane

<table>
<thead>
<tr>
<th></th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
<th>AGW (Germany)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term value</td>
<td>125 ppm</td>
<td>LFC</td>
<td>174 mg/m³, 50 ppm</td>
<td>260 mg/m³, 75 ppm</td>
</tr>
<tr>
<td>Long-term value</td>
<td>25 ppm</td>
<td>BEI</td>
<td>375 mg/m³, 100 ppm</td>
<td>75 mg/m³, 20 ppm</td>
</tr>
</tbody>
</table>

108-88-3 toluene

<table>
<thead>
<tr>
<th></th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
<th>AGW (Germany)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term value</td>
<td>C 300; 500 ppm</td>
<td>75 mg/m³, 20 ppm</td>
<td>190 mg/m³, 50 ppm</td>
<td></td>
</tr>
<tr>
<td>Long-term value</td>
<td>200 ppm</td>
<td>NIC-BEI</td>
<td>375 mg/m³, 100 ppm</td>
<td></td>
</tr>
</tbody>
</table>

DNELs: Not available
PNECs: Not available
Additional information: The lists valid during the making were used as basis.

Personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves:
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

9 Physical and chemical properties

General Information

Form: Liquid
Colour: Colourless
**Odour:** Solvent Smell

- **Change in condition**
  - Melting point/Melting range: Not available
  - Boiling point/Boiling range: Not available

- **Flash point:** Not available

- **Flammability (solid, gaseous):** Not available

- **Ignition temperature:** Not available

- **Self-igniting:** Product is not self-igniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - Lower: Not available
  - Upper: Not available

- **Oxidizing properties:** Not available

- **Vapour pressure:** Not available

- **Density:** Not available
  - Relative density: Not available
  - Vapour density: Not available
  - Evaporation rate: Not available

- **Solubility in / Miscibility with water:** Not available

- **pH-value:** Not available

- **Segregation coefficient (n-octanol/water):** Not available.

- **Viscosity:**
  - Dynamic: Not available.


**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Materials to be avoided:** Not available

- **Dangerous reactions:** No dangerous reactions known.

- **Dangerous decomposition products:** No dangerous decomposition products known.

**11 Toxicological information**

- **Acute toxicity**

  - **75-09-2 dichloromethane**
    - **Oral LD50** 1600 mg/kg (rat)
    - **Inhalative LC50/4 h** 88 mg/l (rat)

  - **108-88-3 toluene**
    - **Oral LD50** 5000 mg/kg (rat)
    - **Dermal LD50** 12124 mg/kg (rabbit)
    - **Inhalative LC50/4 h** 5320 mg/l (mouse)
Safety Data Sheet

Trade name: ACRYLDINE A

- Primary irritant effect
  - on the skin: Irritating effect possible.
  - on the eye: Irritating effect possible.
  - Sensitization: Sensitization possible.
- Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
- Toxicokinetics, metabolism and distribution: Not available
- Acute effects (acute toxicity, irritation and corrosivity): Not available
- Repeated dose toxicity: Not available
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction): Not available

12 Ecological information

- Information about elimination (persistence and degradability): Not available
- Behaviour in environmental systems
- Mobility and bioaccumulation potential: Not available
- Ecotoxicological effects
- Aquatic toxicity: Not available
- Additional ecological information:
  - General notes:
    Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  - PBT assessments: Not available

13 Disposal considerations

- Product
  - Recommendation:
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- Land transport ADR/RID (cross-border)
  - ADR/RID class: 6.1 Toxic substances.
  - Danger code (Kemler): 60
  - UN-Number: 2810
  - Packaging group: III
  - Hazard label: 6.1
  - Description of goods: 2810 TOXIC LIQUID, ORGANIC, N.O.S. (DICHLOROMETHANE)
  - Limited quantities (LQ): LQ7
  - Transport category: 2
  - Tunnel restriction code: E

(Contd. of page 4)

(Contd. on page 6)
15 Regulatory information

- Sara
  - Section 335 (extremely hazardous substances):
    None of the ingredients is listed.
  - Section 313 (specific toxic chemical listings):
    75-09-2 dichloromethane
    108-88-3 toluene
  - TSCA (Toxic Substances Control Act):
    All ingredients are listed.
  - Proposition 65
    - Chemical known to cause cancer:
      75-09-2 dichloromethane
    - Chemicals known to cause reproductive toxicity for females:
      None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for males:
      None of the ingredients is listed.
    - Chemicals known to cause developmental toxicity:
      108-88-3 toluene
  - Cancerogenity categories
    - EPA (Environmental Protection Agency)
      75-09-2 dichloromethane B2
      108-88-3 toluene II
    - IARC (International Agency for Research on Cancer)
      75-09-2 dichloromethane 2B
Trade name: ACRYLDINE A

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Substance</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>3</td>
</tr>
<tr>
<td>9011-14-7</td>
<td>Polymethyl methacrylate</td>
<td>3</td>
</tr>
</tbody>
</table>

- **NTP (National Toxicology Program)**
  - 75-09-2 dichloromethane

- **TLV (Threshold Limit Value established by ACGIH)**
  - 75-09-2 dichloromethane
  - 108-88-3 toluene

- **NIOSH-Ca (National Institution for Occupational Safety & Health)**
  - 75-09-2 dichloromethane

- **OSHA-Ca (Occupational Safety & Health Administration)**
  - 75-09-2 dichloromethane

- **Labelling according to EU guidelines:**
  The product has been classified as dangerous according to REGULATION (EC) No. 1272/2008 and REGULATION (EC) No. 1907/2006.

- **Code letter and hazard designation of product:**
  Xn Harmful

- **Hazard-determining components of labelling:**
  dichloromethane

- **Risk phrases:**
  40 Limited evidence of a carcinogenic effect.

- **Safety phrases:**
  2 Keep out of the reach of children.
  36/37 Wear suitable protective clothing and gloves.
  46 If swallowed, seek medical advice immediately and show this container or label.
  56 Dispose of this material and its container to hazardous or special waste collection point.

- **National regulations**

- **Other regulations, limitations and prohibitive regulations**
  - **REACH Regulation Title VIII Restriction:**
    CAS No.: 108-88-3 toluene
    Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0.1% by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.

16 Other information

REACH Annex XVII Restricted: toluene
Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0.1% by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.

- **Relevant R-phrases**
  11 Highly flammable.
  38 Irritating to skin.
  40 Limited evidence of a carcinogenic effect.
  48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
  63 Possible risk of harm to the unborn child.
  65 Harmful: may cause lung damage if swallowed.
  67 Vapours may cause drowsiness and dizziness.


**DISCLAIMER OF LIABILITY**
The information in this MSDS/SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions
or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in anyway connected with the handling, storage, use or disposal of the product. This MSDS/SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS/SDS information may not be applicable.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the “International Air Transport Association” (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the “International Civil Aviation Organization” (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent