

## Safety Data Sheet

Printing date 15.03.2010

Revision: 15.03.2010

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

### · Product details

· **Trade name:** ACRYLDINE C

· **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:** SCATR1003000898; GZ1003018125/CHEM

## 2 Hazards identification

### · Hazard description:



T Toxic

F Highly flammable

### · **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 45 May cause cancer.

R 11 Highly flammable.

R 22 Also harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 48/20 Also harmful: danger of serious damage to health by prolonged exposure through inhalation.

R 63 Possible risk of harm to the unborn child.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

### · **Classification system:**

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

### · **GHS label elements:**



**Danger**

H225 - Highly flammable liquid and vapour.



**Danger**

H350 - May cause cancer.

H304 - May be fatal if swallowed and enters airways.

H361d - Suspected of damaging the unborn child.

H373 - May cause damage to organs through prolonged or repeated exposure.



**Warning**

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

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· **Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

· **Response:**

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **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.

· **Dangerous components:**

|   |   |       |
|---|---|-------|
| CAS: 107-06-2<br>EINECS: 203-458-1<br>EU number: 602-012-00-7 | 1,2-dichloroethane<br>Carc. Cat. 2;  T,  Xi,  F; R 45-11-22-36/37/38<br>Danger:  2.6/2;  3.6/1B<br>Warning:  3.1.O/4, 3.2/2, 3.3/2, 3.8/3 | 64,4% |
| CAS: 108-88-3<br>EINECS: 203-625-9<br>EU number: 601-021-00-3 | toluene<br>Repr. Cat. 3;  Xn,  Xi,  F; R 11-38-48/20-63-65-67<br>Danger:  2.6/2;  3.10/1, 3.7/2, 3.9/2<br>Warning:  3.2/2, 3.8/3          | 23,7% |
| · <b>Non-dangerous components:</b>                            |   |       |
| 9011-14-7   | Polymethyl methacrylate   | 11,9% |

**4 First aid measures**· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Call for a doctor immediately.**5 Fire-fighting measures**· **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.· **For safety reasons unsuitable extinguishing agents:** Water with full jet· **Protective equipment:** Wear fully protective suit.**6 Accidental release measures**· **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

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- **Measures for environmental protection:**
  - Do not allow product to reach sewage system or any water source.
  - Inform respective authorities in case of seepage into water course or sewage system.
  - 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.
  - Do not flush with water or aqueous cleansing agents
- **Additional information:** See Section 7 for information on safe handling.

## 7 Handling and storage

- **Handling**
- **Information for safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Open and handle receptacle with care.
  - Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
  - Keep respiratory protective device available.
- **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 flammable substances.
  - Store away from foodstuffs.
- **Further information about storage conditions:**
  - Keep container tightly sealed.
  - Store in cool, dry conditions in well sealed receptacles.

## 8 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:**

### 107-06-2 1,2-dichloroethane

|           |   |
|-----------|---|
| PEL (USA) | Short-term value: C 100; 200* ppm<br>Long-term value: 50 ppm<br>*5-min peak in any 3 hrs      |
| REL (USA) | Short-term value: 8 mg/m <sup>3</sup> , 2 ppm<br>Long-term value: 4 mg/m <sup>3</sup> , 1 ppm |
| TLV (USA) | 40 mg/m <sup>3</sup> , 10 ppm   |

### 108-88-3 toluene

|               |   |
|---------------|---|
| PEL (USA)     | Short-term value: C 300; 500* ppm<br>Long-term value: 200 ppm<br>*10-min peak per 8-hr shift          |
| REL (USA)     | Short-term value: 560 mg/m <sup>3</sup> , 150 ppm<br>Long-term value: 375 mg/m <sup>3</sup> , 100 ppm |
| TLV (USA)     | 75 mg/m <sup>3</sup> , 20 ppm   |
| AGW (Germany) | NIC-BEI<br>190 mg/m <sup>3</sup> , 50 ppm<br>4(II);DFG, H, Y  |

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

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- **Personal protective equipment**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.
- **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:**



Tightly sealed goggles

## 9 Physical and chemical properties

### · General Information

|                |               |
|----------------|---------------|
| <b>Form:</b>   | Liquid        |
| <b>Colour:</b> | Colourless    |
| <b>Odour:</b>  | Solvent Smell |

### · Change in condition

|                                     |               |
|-------------------------------------|---------------|
| <b>Melting point/Melting range:</b> | Not available |
| <b>Boiling point/Boiling range:</b> | Not available |

· **Flash point:** Not available

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

· **Ignition temperature:** Not available

· **Self-igniting:** Product is not selfigniting.

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

### · Explosion limits:

|               |               |
|---------------|---------------|
| <b>Lower:</b> | Not available |
| <b>Upper:</b> | Not available |

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|   |   |
|---|---|
| · <b>Oxidizing properties</b>                       | Not available   |
| · <b>Vapour pressure:</b>                           | Not available   |
| · <b>Density:</b>                                   | Not available   |
| · <b>Relative density</b>                           | Not available   |
| · <b>Vapour density</b>                             | Not available   |
| · <b>Evaporation rate</b>                           | Not available   |
| · <b>Solubility in / Miscibility with water:</b>    | Not available   |
| · <b>pH-value:</b>                                  | Not available   |
| · <b>Segregation coefficient (n-octanol/water):</b> | Not available.  |
| · <b>Viscosity:</b>                                 |   |
| <b>Dynamic:</b>                                     | Not available.  |
| · <b>Additional information:</b>                    | Product Nature: Plastic Adhesion Use Only (Acrylic Resin & Acrylic Resin) |

### 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**

- **LD/LC50 values relevant for classification:**

#### 107-06-2 1,2-dichloroethane

|        |      |                  |
|--------|------|------------------|
| Oral   | LD50 | 670 mg/kg (rat)  |
| Dermal | LD50 | 2800 mg/kg (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)    |

- **Primary irritant effect**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **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:

Harmful

Irritant

Carcinogenic.

- **Toxicokinetics, metabolism and distribution:** Not available
- **Acute effects (acute toxicity, irritation and corrosivity):** Not available
- **Repeated dose toxicity:** Not available
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** Not available

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**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 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely 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:** 3 Flammable liquids.
- **Danger code (Kemler):** 336
- **UN-Number:** 1992
- **Packaging group:** II
- **Hazard label:** 3+6.1
- **Description of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYLENE DICHLORIDE, TOLUENE)
- **Limited quantities (LQ):** LQ0
- **Transport category:** 2
- **Tunnel restriction code:** D/E

- **Maritime transport IMDG**



- **IMDG Class:** 3
- **UN Number:** 1992
- **Label:** 3+6.1
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** Yes

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· **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYLENE DICHLORIDE, TOLUENE)

· **Air transport ICAO-TI and IATA-DGR**



· **ICAO/IATA Class:** 3

· **UN/ID Number:** 1992

· **Label:** 3+6.1

· **Packaging group:** II

· **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYLENE DICHLORIDE, TOLUENE)

· **UN "Model Regulation":** UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

## 15 Regulatory information

· **Sara**

· **Section 335(extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313(specific toxic chemical listings):**

107-06-2 1,2-dichloroethane

108-88-3 toluene

· **TSCA(Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemical known to cause cancer:**

107-06-2 1,2-dichloroethane

· **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

· **Carcinogenicity categories**

· **EPA(Environmental Protection Agency)**

107-06-2 1,2-dichloroethane

B2

108-88-3 toluene

II

· **IARC(International Agency for Research on Cancer)**

107-06-2 1,2-dichloroethane

2B

108-88-3 toluene

3

9011-14-7 Polymethyl methacrylate

3

· **NTP(National toxicology Program)**

107-06-2 1,2-dichloroethane

R

· **TLV(Threshold Limit Value established by ACGIH)**

107-06-2 1,2-dichloroethane

A4

108-88-3 toluene

A4

· **NIOSH-Ca(National Institution for Occupational Safety & Health )**

107-06-2 1,2-dichloroethane

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· **OSHA-Ca(Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **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:**T Toxic  
F Highly flammable· **Hazard-determining components of labelling:**1,2-dichloroethane  
toluene· **Risk phrases:**

45 May cause cancer.  
 11 Highly flammable.  
 22 Also harmful if swallowed.  
 36/37/38 Irritating to eyes, respiratory system and skin.  
 48/20 Also 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.

· **Safety phrases:**

53 Avoid exposure - obtain special instructions before use.  
 1/2 Keep locked up and out of the reach of children.  
 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
 36/37/39 Wear suitable protective clothing, gloves and eyeface protection.  
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

· **National regulations**· **Other regulations, limitations and prohibitive regulations**· **REACH Regulation Title VIII Restriction:** CAS No. 108-88-3 toluene**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.  
 22 Harmful if swallowed.  
 36/37/38 Irritating to eyes, respiratory system and skin.  
 38 Irritating to skin.  
 45 May cause cancer.  
 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.

\*\*\*\*\*  
 The contents and format of this MSDS/SDS are in according with REGULATION(EC) No. 1272/2008, (EC) No. 1907/2006, EU Commission Directive 1999/45/EC, 67/548/EEC.

**DISCLAIMER OF LIABILITY**

The information in this MSDS/SDS was obtained from sources which we believe are reliable. However, the

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**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

EU