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

Product name: Thermal Plate Developer
Product code: TPD-83
Supplier: Lucky Huaguang Graphics Co., Ltd
718 South Station Road, Nanyang, Henan, China
IN EMERGENCY, telephone: 0377-63863024, fax: 0377-63132092. Available during office hours only.
Product Use: photographic processing chemical (developer/activator), For industrial use only.

2. Hazards identification

This Safety Data Sheet conforms to REACH Regulation (EC) 1907/2006.
Product: Irritant. Irritating to eyes and skin.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Weight %</th>
<th>Component</th>
<th>CAS-No.</th>
<th>EINECS-No./ ELINCS No.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - &lt; 10</td>
<td>sodium metasilicate</td>
<td>1344-09-8</td>
<td>215-687-4</td>
<td>C; R34**</td>
</tr>
</tbody>
</table>

* Symbol and R Phrase according to EC Annex I
** Substance not listed in EC Annex I

4. First aid measures

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms occur.
Eyes: In case of contact with eyes, flush immediately with plenty of water and seek medical attention.
Skin: Immediately flush with plenty of water for at least 15 minutes and wash using soap. Get medical attention if symptoms occur.
Ingestion: Do NOT induce vomiting. Give victim a glass of water. Get medical attention immediately. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Extinguishing Media: The product is not flammable. Use appropriate agent for adjacent fire.
Special Fire-Fighting Procedures: No special fire fighting procedure is necessary.
Hazardous Combustion Products: None.
Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions: See Section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Prevent spillage from entering drains. Absorb spill with vermiculite or other inert absorbant material such as sand or earth, then place in a suitable container for proper disposal. Clean surface thoroughly with water to remove residual contamination.

Waste disposal: Contaminated absorbent should be disposed of in accordance with local regulations.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Use with adequate ventilation.

Prevention of Fire and Explosion: No special precautionary measures should be needed under anticipated conditions of use.

Storage: Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

Ventilation: Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8). Good general ventilation of 10 or more room volumes per hour in the work area is recommended.

8. Exposure controls/personal protection

Occupational exposure controls: Not established

Ventilation: Avoid exposure to mists and vapours by mixing solutions in closed vessels and/or under local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions.

Respiratory protection: None should be needed under normal conditions of use.

Eye protection: Wear safety glasses with side shields or protective goggles whenever mixing or handling solutions.

Skin and body protection: Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when
mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness</th>
<th>Breakthrough</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td>&gt;= 0.38 mm</td>
<td>&gt; 480 min</td>
</tr>
<tr>
<td>Neoprene</td>
<td>&gt;= 0.65 mm</td>
<td>&gt; 240 min</td>
</tr>
<tr>
<td>butyl-rubber</td>
<td>&gt;= 0.36 mm</td>
<td>&gt; 480 min</td>
</tr>
</tbody>
</table>

Avoid natural rubber gloves.
The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

**Recommended Decontamination Facilities:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. **Physical and chemical properties**

**Physical form:** liquid

**Colour:** colorless translucent liquid

**Odour:** slight

**Specific gravity:** 1.0780

**Vapour pressure:** 24 mbar (18.0 mm Hg)

**Vapour density:** 0.6

**Volatile fraction by weight:** 90 - 95%

**Boiling point/boiling range:** no data available

**Water solubility:** soluble

**pH:** 13.1 - 13.4

**Flash point:** does not flash

10. **Stability and reactivity**

**Stability:** Stable under normal conditions.

**Incompatibility:** Strong oxidizing agents, Strong acids.

**Hazardous decomposition products:** None under normal conditions of use.

**Hazardous Polymerization:** Hazardous polymerisation does not occur.

11. **Toxicological information**
Effects of Exposure

Inhalation: Expected to be a low hazard for recommended handling.

Eyes: Irritating to eyes.

Skin: Irritating to skin.

Ingestion: Expected to be a low ingestion hazard.

Data for Silicic acid, sodium salt (CAS 1344-09-8):

Acute Toxicity Data:

- Oral LD50 (rat): 1,153 mg/kg
- Dermal LD50 (rabbit): > 4,640 mg/kg
- Skin irritation: Corrosive
- Eye irritation: Severe eye irritation

Mutagenicity/Genotoxicity Data:

Chromosomal aberration assay: negative (in presence and absence of activation)

Definitions for the following section(s): LOEL = lowest-observed-effect level, LOAEL = lowest-observed-adverse-effect, NOAEL = no observed-adverse-effect level, NOEL = no-observed-effect level.

Repeated dose toxicity:

- Oral (180 days, male and female rat): NOAEL; 159 mg/kg/day (highest dose tested)

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

- Toxicity to fish (LC50): > 100 mg/l
- Toxicity to daphnia (EC50): > 100 mg/l
- Toxicity to algae (IC50): 10 - 100 mg/l
- Toxicity to other organisms (EC50): > 100 mg/l (sludge)

Persistence and degradability: Not readily biodegradable.

13. Disposal considerations

This information is provided to assist users in the correct disposal of working solutions prepared and used to Kodak specifications.

Working solution: Waste material is currently classified as hazardous under Council Directive 91/689/EEC. The European Waste Catalogue Code is 09 01 02 Water based offset plate developer solutions. Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste
management companies.

**Product containers:** If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non-hazardous waste. Whenever possible, minimize waste by using the rinsing water to make up the working solution. The European Waste Catalogue Code is 15 01 02 plastic packaging. Waste product packaging contaminated by residues of hazardous contents should be consigned for disposal as hazardous waste. In this case, the European Waste Catalogue Code is 15 01 10 packaging containing residues of or contaminated by dangerous substances.

### 14. Transport information

Not regulated for all modes of transportation.

Packing group:  II  
Dot classification: class 8: Corrosive  
EMS: F-A, S-B  
IMDG Proper Shipping Name (PSN): CORROSIVE LIQUID, BASIC, INOGANIC, N.O.S.  
Marine Pollutant (N=no, P=Marine Pollutant, PP=Severe MP): N  
UN NO.:3266  
Transportation note: protect against hot, damp and bump. Upside down is not allowed.

### 15. Regulatory information

<table>
<thead>
<tr>
<th>Regulatory List</th>
<th>Notification status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>All listed</td>
</tr>
<tr>
<td>DSL</td>
<td>Not all listed</td>
</tr>
<tr>
<td>NDSL</td>
<td>Listed</td>
</tr>
<tr>
<td>EINECS</td>
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</tr>
<tr>
<td>ELINCS</td>
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<tr>
<td>NLP</td>
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<tr>
<td>AICS</td>
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<tr>
<td>IECS</td>
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<tr>
<td>NZIoC</td>
<td>All listed</td>
</tr>
<tr>
<td>PICCS</td>
<td>Not all listed</td>
</tr>
</tbody>
</table>

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Huaguang.
Labelling:
The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

**pH:** > 12

**Symbol/Indication of Danger:** Xi: Irritant

**Risk Phrases:** R36/38: Irritating to eyes and skin.

### 16. Other information

The following is an explanation of the meaning of the Symbol letters and Risk Phrases for the pure substance(s) referred to in Section 2 of this Safety Data Sheet.

**C:** Corrosive

**R34:** Causes burns.

Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.