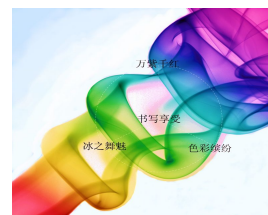


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Safety Data Sheet

Regulation(EC) No 1907/2006,1272/2008

Date: Mar.5th,2015

1. Identification of the Substance/Preparation/Company

Product details

Trade name: Permanent Marking Ink / RED

Substance/Mixture: Mixture/preparation

Form:Fluid

Relevant identified uses advised against

Identified uses: Laboratory chemicals, Manufacture of the substance/mixture

Product type: _

Manufacturer /Supplier:

Shanghai University Nano-Science & Technology Institute Special Ink R&D Department

No.149 Yanchang Road,Shanghai,China

Phone: 86-21-56331532

Fax: 86-21-56331117

Web: www.inksh.com

Further information obtainable from:

Technical service , Howard Young

Tel: 86-021-56331532

Mobile : 86-13761677741

Information in case of emergency:

Tel: 86-13761677741

2. Hazards identification



Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of the “General Classification guideline for preparations of the EU ” in the latest valid version.

R 11 Highly flammable

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

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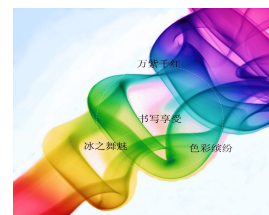


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3. Composition /information on ingredients

Chemical characterization

Mixture of the following substances , containing non-hazardous substances and colouring agents.

Description : Mixture of substances listed below with nonhazardous additions

| Dangerous components | | |
|----------------------|--|-----|
| CAS:64-17-5 | ETHANOL | 30% |
| EINECS:200-578-6 | Flam. Liq.2, H225  | |
| CAS:67-63-0 | ISOPROPANOL | 37% |
| EINECS: | Flam. Liq.2, H225   | |
| CAS:111-46-6 | DIETHYLENE GLYCOL | 30% |
| EINECS: | Acute Tox, 4,H302  | |
| CAS:82347-07-7 | C.I. Solvent Red 218 | 3% |
| EINECS: |  Eye Dam.1, H318;  Acute Tox.4, H312;  Acute Tox.4, H332; | |

4. First –aid measures

After inhalation : Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

After skin contact : Wash affected area off with water or shower. Get immediate medical attention.

After eye contact : Flush eyes with generous amounts of water for at least 15 minutes, and get consult a doctor.

After swallowing: If swallowed, do not induce vomiting. Dilute with water or salt water and call a physician immediately

5. Fire –fighting measures

FIRE PERIPHERICAL: Move containers to safety place. If it is unable to move it, cool containers with water spray

FIRE: Off the fire with dry chemical foams or water spray. Firefighters should be equipped with protective apparatus and never do it under the lee

EXTINGUISHING MEDIA: Chemical foam, dry powder, CO2, water, dry sand

6. Accidental release measure

Shut off all sources of ignition; No flares, smoking or flames in area

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container with covers for disposal, using no sparking tools and wash off with a plenty of water. Wear a protective clothes and gloves while working and never do it under the lee. Exercise reasonable care and attention not to drain waste water into the river.

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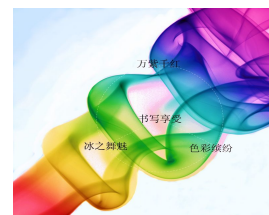


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7. Handling and storage

HANDLING:

No flares, smoking or flames in area. Avoid spark and contact with strong acid.

Sufficient ventilation should be done in the working zone, should close the container tightly after working.

Avoid to leaking, flooding, scattering and evaporation

Take precautionary measures against static discharge. Wear an electric conductor type clothe and shoes.

Don't handle the containers roughly

STORAGE:

The protective type electrical appliances should be used and appliances should be earthed.

It should be stored in a cool place and be kept in a tightly closed container, protected from physical damage, and away from oxidizing materials and sources of ignition.

OTHERS: Follow all federal, provincial and local requirements and regulations.

Store in cool, dry conditions in well sealed receptacles.

8. Exposure controls / personal protection

| | <u>Ethanol</u> | propan-2-ol |
|---------------------------------|-----------------|------------------------------|
| Managed density | ___ | 400ppm |
| Permissible density by Japan | | |
| Society for Occupational Health | ___ | 400ppm(980g/m ³) |
| ACGIH (TLV) | TWA 1000ppm | TWA 400ppm |
| OSHA (PEL) | air TWA 1000ppm | air TWA 400ppm |

ENGINEERING MEASURES

Close the container tightly in case of using in room or doing sufficient ventilation.

Install the safety shower, hand washing apparatus and eyes washable apparatus near to working area.

STORAGE:

Close the container tightly in case of using in room or doing sufficient ventilation.

Install the safety shower, hand washing apparatus and eyes washable apparatus near to working area.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: NIOSH/MSHA-Approved organic vapor respirator

EYE PROTECTION: Chemical goggles.

HAND, SKIN AND BODY PROTECTION: Gloves, Coveralls, apron, Boots

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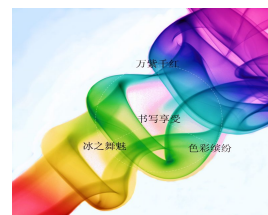


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9. Physical and chemical properties

| |
|---|
| General Information |
| Form : liquid Colour : RED Odour : Solvent odor |
| Change in condition Melting point /Melting range: N/A Boiling point /Boiling range: 78 °C |
| Flash point: 12°C |
| Self-igniting : product is not selfigniting |
| Vapour pressure : N/A |
| Density: Not determined |
| Solubility in /Miscibility with Water : Mixed |
| Viscosity : Dynamic at 25 °C : 7.0±1.5 mPa · s |

10. Stability and reactivity

| HAZARDOUS DATA OF SOLVENT | ETHANOL | propan-2-ol |
|------------------------------------|--------------|--------------|
| Flash point | 19°C(closed) | 12°C(closed) |
| Explosion limit: Upper Lower | 19 3.3 | 11.8 2.0 |
| Ignition Point | 371~427°C | 399°C |
| Note) Explosion limit: volume% | | |

STABILITY AND REACTIVITY: Stable under room temperature.

React to strong acid and may occur fire and explosion.

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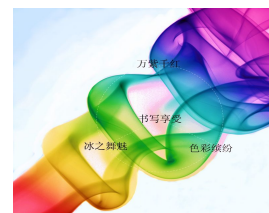


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11. Toxicological information

| | ETHANOL | propan-2-ol |
|------------------|--------------|--------------|
| ACUTE TOXICITY | | |
| ORAL-Rat LD50 | 7060mg/kg | 5040mg/kg |
| STIMULUS EFFECTS | | |
| EYE-Rabbit | 500mg Heavy | 10mg Middle |
| SKIN-Rabbit | 400mg Middle | 500mg Slight |
| TERATOGENICITY | N/A | N/A |
| CARCINOGENIC | N/A | N/A |

CHRONIC TOXICITY: Repetition or contact on the prolonged skin may start dermatitis.

12. Ecological information

BIODEGRADABILITY: N/A

FISH TOXICITY: N/A

ACCUMULATION NATURE: Ethanol ; Octanol/Water distribution coefficient log Pow: 0.32

13. Disposal considerations

Treatment should be done in accordance with the method noted on Chapter 7.

When discarding, in accordance with an industrial-waste-treatment standard, it destroys by fire. In outsourcing, it specifies that it is waste oil (flammable), and it commissions it to the industrial waste treatment company. who obtained permission of authorities.

14. Transport information

On the occasion of transportation, it confirms that there is no leak in a container and package, it loads that there may not be a fall, drop, and damage, and collapse-of-cargo-piles prevention is ensured.

In addition, the place set to statutes, such as labor security and hygiene law and Fire Service Law, permission is followed.

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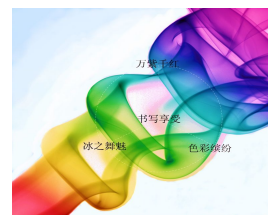


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15. Regulatory information

Labeling according to EU guidelines:

The preparation is classified Highly Flammable according European Directive about hazardous preparations 99/45/EC with his adaptations".

Code letter and hazard designation of product:



16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Others: Containers carry a tactile warning of danger

National regulations: