Material safety data sheet (MSDS)

1. Chemical product and company identification

Product name: Aliphatic Urethane Acrylate
Product number: RU-8090

Chemical names: Aliphatic Urethane Acrylate

Manufacturer: Nanxiong Rising Chemical Industry CO., LTD.
Address: No.2, Pingan East Road 2, Zhuji Industrial parks, Nanxiong City, Guangdong Province, P.R. China.
Telephone number:+86-751-3867118、+86-751-3867117、+86-751-3867116
Emergency number:+86-751-3867128(Miss Yao)
National emergency telephone: 0532-83889090
Prepare the date: 2016.7.4

2. Hazards identification

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS risk categories:</td>
<td>Flammable liquid - 4 classes</td>
</tr>
<tr>
<td>Physical and chemical hazard:</td>
<td>Combustible liquid. Cause mild skin irritation.</td>
</tr>
<tr>
<td>Health hazard effect:</td>
<td>Have certain stimulation to skin and mucosa, sensitization.</td>
</tr>
<tr>
<td>Environmental impact:</td>
<td>Can cause pollution to water and soil.</td>
</tr>
</tbody>
</table>

Tag elements:
- Identifier: No pictograms;
- Warnings: Warning;
- Danger: Combustible liquid. Cause mild skin irritation;

Note:
- Safety countermeasures: Avoid release to the environment.
  - When using this product, do not eat, drink and smoke.
  - Pay attention to when using don't touch the skin, wear protective goggles, wear protective gloves, wearing protective mask, protective
clothing, fully wash their hands after using.

First aid measures: If inhaled, transfer the victim to fresh air place, keep breathing made comfortable rest position. If feeling unwell, seek medical clinic. If you have the respiratory system disease, doctor visits.

Storage: Keep container closed. The sun, stored in a well-ventilated place away from heat source.

Abandoned: The disposition of the contents and containers, in accordance with the relevant provisions.

3. Composition/Information on ingredients

The chemical characteristics of description:

A single product/mixture: mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>% Comp</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Urethane Acrylate</td>
<td>100%</td>
<td>Combustible liquid</td>
</tr>
</tbody>
</table>

4. First aid measures

The first-aid measures for different exposure routes:

Inhalation, remove pollution sources or remove the patient to fresh air place, and in a timely manner. Skin contact remove contaminated clothing and shoes as soon as possible and leather products (such as watches, belts); Erase or absorb excess chemicals as soon as possible; In water and non rub soap to clean for 20 minutes or until the chemicals to remove completely; Go to a doctor immediately.

Eye contact - erase or absorb excess chemicals as soon as possible; The eyelids open immediately, irrigate with flowing water to alleviate 5 minutes or until the contaminants removal; Hospital immediately.

Eating - when the patient is unconscious or already unconscious and not feeding when anything; Do not push; To drink 240-300 ml of water to dilute compounds in the stomach; If patients with spontaneous vomiting, should make the patient body lean forward to reduce the risk of inhaling, and let the rinse your
mouth with water and water repeatedly; Go to a doctor immediately.

The most important symptoms and harm effect: vapors may irritate eyes, mucous membrane and skin, high concentration will cause anesthesia.

The protection of emergency personnel:

1. first aid staff please execute emergency alert zone
2. if you need an alert zone ambulance, please in accordance with section 8 exposure prevention measures in personal protective equipment instructions, wear appropriate protective equipment.

The doctor remind: no

5. Fire fighting measures

Suitable fire extinguishing media: CO2, foam, dry extinguishing media, water spray.

Specific hazards may be encountered during fire-fighting:

Harmful vapours. At elevated temperatures there is a risk of exothermic polymerization. A closed container will rupture.

Specific fire-fighting methods: None

Special equipment for the protection of firefighters: Wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions: Do not allow materials to enter sewers, soil or surface water.

Methods for cleaning up: For a large spill contain by bounding. Absorb with sand, sweep up and place in containers for disposal. Dispose of contaminated material in accordance with regulations.

7. Handling and storage

Handling

Use only in well ventilated areas, possibly combined with a local extraction. Do not eat smoke or drink curing use. Take precautions against electrostatic discharge.

Storage

Keep away from sources of ignition. Store in a well ventilated place. Due to the Polymerisation hazard store the product in the original containers at temperatures below 45°C. Avoid contact with light, UV radiation and strong oxidisers. Air should be present above the liquid for inhibition to remain active.
8. Exposure controls/personal protection

Engineering controls: sufficient ventilation to minimize vapor exposure

Exposure limits: No Data Available

Biological standards: No Data Available

Personal protective equipment:

Respiratory protection

If ventilation is poor suitable respiratory protection should be used, e.g. type A filter mask.

Hand protection

Do not use natural rubber gloves. Nitrile gloves should be worn and where a mixture of solvent and acrylate is being used then the thickness should be >0.5 mm. Gloves should be replaced regularly or if any change in appearance is noticed.

Eye protection: Safety glasses with side-shields.

Skin and body protection: Use a face shield, impervious body covering and boots.

Hygiene measures

Store work clothing separately. Remove soiled clothing immediately. Safety showers and eye fountains should be made available. Handle in accordance with good industrial hygiene and safety practice.

9. Physical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Physical form</td>
<td>Viscosity liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild monomer odor</td>
</tr>
<tr>
<td>Deposition TEP</td>
<td>&gt; 110 °C (Measurement method: closer cup)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Density</td>
<td>1.15-1.16 g/cm³/30°C</td>
</tr>
</tbody>
</table>

10. Stability and reactivity


Special circumstances may endanger response: no data.

To avoid the situation: exposed to sunlight, or inhibitor.
Should avoid substances: antioxidant, rust.
Hazard decomposition: CO, CO₂.

11. Toxicological information

Urgent toxicity: can cause tingling of the skin.
Sensitivity to: may cause allergic, thus aggravating illness.
Slow toxicity or long-term toxicity: no data.
Special effects: no data.

12. Ecological information

The possible environmental impact of:
1. When the release to the soil, and seep into the underground.
2. When released to the water, polluted water.
3. Due to the low volatility, not released into the atmosphere.

13. Disposal considerations

1. Refer to the relevant laws and regulations to deal with
2. The storage of waste to be processed in accordance with the storage conditions
3. Can use specific incineration and sanitary landfill method processing

14. Transport information

1. Dangerous goods code: No
2. The UN code: 1866
3. Name of goods: RU-8090
4. Risk classification: Flammable liquid - 4 classes
5. Packaging categories: II
6. Packing method: Small openings steel drum, 200kg/drum
7. Marine pollutant: It is
8. Transportation note: Not with strong oxidant, acid, acid anhydride, halogen, and high pressure gas blending transportation, container and residue
should be prohibited. Goods stacking height should not exceed 3 meters. Transport is subject to ICAO, IMDG, RID, ADR, AND related regulations.

15. Regulatory information

Applicable laws and regulations: labor safety and sanitation rules, general rules of the hazard substances and hazardous substances, organic solvent poisoning prevention rules and labor standard harmful material allowable concentration in the air, the working environment of road traffic safety regulations, business store clear standard processing methods and devices

16. Other information

References

1. CHEMINFO computer database, CCINFO compact disk (CD), 99-2
2. HAZARDTEXT computer database, TOMES PLUS CD, Vol. 41, 1999
3. RTECS computer database, TOMES PLUS CD, Vol. 41, 1999
4. HSDB computer database, TOMES PLUS CD, Vol. 41, 1999
5. Chinese computer database of Hazardous Chemicals, Environmental Protection Agency, China

Department of filling: technology

《The hazardous chemical materials safety management》 - the supervision and administration of production safety in guangdong province
About the product and its usage of all the information and recommendations and Suggestions are believed to be reliable. But for special requirements, Nanxiong Rising Chemical Industry CO., ltd. cannot guarantee that the above information is accurate, complete or enough, whether is suitable for use. Should be decided by the users themselves to do. Nanxiong Rising Chemical Industry CO., ltd. does not guarantee the use of the above products must achieve the ideal effect, users have the responsibility to ensure when used in accordance with local laws and obtain the necessary certificates.

Nanxiong Rising Chemical Industry CO., LTD.

Address: No.2, Pingan East Road 2, Zhuji Industrial parks, Nanxiong City, Guangdong Province, P.R. China.
The phone :86+0751-3867116  Fax :86+0751-3867128