1. INFORMATION OF THE SUBSTANCE / COMPANY

1.1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION

Product name: SL-1801
Product description: para-tert-octylphenol formaldehyde resin
CAS No.: 26678-93-3

1.2 USE OF THE SUBSTANCE

Use of the substance: rubber industry

1.3 COMPANY IDENTIFICATION

Manufacturer: Sino Legend (Zhangjiagang) Chemical Co., Ltd
Address: 99#, Tianba Road Yangtze International Chemical Industrial Park, Zhangjiagang City, Jiangsu Province, China, 215635
Tel: +86-512-58326999
Fax: +86-512-58326111
Web: www.sinolegend.com

1.4 EMERGENCY PHONE NUMBER

Emergency tel: +86-512-58326999

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Composition</th>
<th>CAS No.</th>
<th>EC index No.</th>
<th>EC/EINECS</th>
<th>R-phrase</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>formaldehyde</td>
<td>50-00-0</td>
<td>605-001-00-5</td>
<td>200-001-8</td>
<td>R23/24/25,R34,R40,R43</td>
<td>≤0.1%</td>
</tr>
<tr>
<td>p-t-octylphenol</td>
<td>140-66-9</td>
<td>205-426-2</td>
<td>R36/38,R21,R50/53</td>
<td>≤4.0%</td>
<td></td>
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<tr>
<td>polymer of p-t-octylphenol</td>
<td>26678-93-3</td>
<td></td>
<td></td>
<td></td>
<td>≥96.0%</td>
</tr>
<tr>
<td>and formaldehyde</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. HAZARDS IDENTIFICATION

DANGERS FOR HUMAN HEALTH AND THE ENVIRONMENT

R-phrase
Improper disposal may be harmful to human health and aquatic organisms, may cause long-term adverse effects on the environment.

4. FIRST AID MEASURES

IN GENERAL
check the vital functions
unconscious: maintain adequate airway and respiration

EYES
immediately flush eyes directly with a stream of water while; washing eyes within several seconds of exposure is essential to achieve maximum effectiveness.
If irritation occurs, seek medical treatment immediately.

SKIN
for skin contact, wash immediately with soap and water. Wash contaminated clothing before reuse.
If irritation occurs, seek medical treatment immediately.

INGESTION
rinse mouth immediately with water.
if ingestion, drink lots of water.
if large amounts of ingestion, induce vomiting immediately, then go to hospital quickly. call the local Poison Treatment Center.

INHALATION
remove the victim to a place with good air ventilation.
if respiratory problem occurs, go for medical treatment promptly.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD
not determined.

FLAMMABLE LIMITS
not determined.

AUTOIGNITION TEMPERATURE
not determined.

FLAMMABLE CLASS
non-flammable.
6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES
keep unnecessary personnel away.
eliminate all sources of ignition.
do not allow the spilled product to enter sewers or open waterways.

PERSONAL PRECAUTIONS
gloves
protective clothing

ENVIRONMENTAL PRECAUTIONS
prevent dust cloud formation by wetting.
wash contaminated clothes.

7. HANDLING AND STORAGE

HANDING
guard against dust accumulation of this material.
do not cut, drill, grind, or weld empty containers.
carry operations in the open ventilation or with respiratory protection.
avoid raising dust.
keep away from naked flames/heat/ignition sources/sparks.

STORAGE
store in a dry area.
keep the materials in a well-ventilated place.
store in a cool area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV
TLV-TWA (ppm) 10ppm total dust
TLV-TWA (mg/m³) 5mg/m³ dust

*: Threshold Limit Value, Time Weighted Average limits for 8hr per day or 40 hr weekly, the maximum airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.
PERSONAL PROTECTION
EYE PROTECTION  safety glasses
SKIN PROTECTION  gloves, protective clothing
RESPIRATORY PROTECTION  when heating: gas mask with filter type A
on dust generation: dust mask with filter type P2
HAND PROTECTION  gloves

9. PHYSICAL AND CHEMICAL PROPERTIES
GENERAL INFORMATION
PHYSICAL STATE  solid
ODOR  not determined
APPEARANCE  white to yellowish pastilles
VAPOR PRESSURE  not determined
VAPOR DENSITY  not determined
BOILING POINT  not determined
SOFTENING POINT  85-105°C
FLASH POINT  not determined
SOLUBILITY  soluble in acetone/THF/organic solvents

10. STABILITY AND REACTIVITY
CHEMICAL STABILITY  stable in normal condition.
CONDITIONS TO AVOID  keep away from heat, sparks or open flame.
POLYMERIZATION  does not undergo hazardous polymerization.
INCOMPATIBILITY  do not mix with strong acids.
HAZARDOUS DECOMPOSITION  complete combustion yields carbon dioxide and water.
trace amounts of formaldehyde may be released in the resin curing process
for formaldehyde, symptoms of exposure including eye, nose, throat, and
respiratory irritation usually are experienced at air concentrations in the
range of 0.2-1.0ppm and become more severe above 1ppm.
11. TOXICOLOGICAL INFORMATION

GENERAL PRODUCT INFORMATION
formaldehyde, polymer with 4-(1,1,3,3-tetramethylbutyl)phenol is used in the synthesis of this resin. The following acute toxicology data are based on tests done for one product from a family of products. This substance is practically non-toxic by the oral, dermal, and inhalation routes. It is slightly irritating to the eyes. It does not irritate skin.

COMPONENT ANALYSIS: LD50
phenol, 4-(1,1,3,3-tetramethylbutyl)-(140-66-9)
oral LD50 rat: 4600mg/kg
oral LD50 mouse: 3210mg/kg
dermal LD50 rabbit: 1880mg/kg

OTHER TOXICOLOGICAL INFORMATION this resin may generate "nuisance" dust. A study in mice indicated that dust overloading compromised pulmonary immune function. The exposure limits for nuisance dust are:
PEL: 15mg/m³(total) 8hrs TWA
PEL: 5mg/m³(resp) 8hrs TWA
TLV: 10mg/m³(total) 8hrs TWA

12. ECOLOGICAL INFORMATION

ECOLOGY: WATER
no bioaccumulation data available.

ECOLOGY: SOIL
no data available.

ENVIRONMENTAL FATE
there is no significant environmental fate and effects data available.

13. DISPOSAL CONSIDERATIONS

ECOLOGY: WASTE
remove to an authorized industrial waste incinerator.
materials should be disposed of in accordance with local and national regulations.
14. TRANSPORTATION INFORMATION

NOT REGULATED

15. REGULATORY INFORMATION

NAME OF THE COMPONENTS DETERMINING THE DANGER
formaldehyde
para-tert-octylphenol

R-PHRASES
R51/53: toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

S-PHRASES
S26: in case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S57: use appropriate container to avoid environmental contamination.
S61: avoid release to the environment. Refer to special instructions.

EC LIST
contains para-tert-octylphenol.

16. OTHER INFORMATION

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its application.

completed on: 12/12/2007