

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name :  $\gamma$ -Nonanoic lactone

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Not a dangerous substance according to GHS.  
This substance is not classified as dangerous according to Directive 67/548/EEC.

### Label elements

This substance is not classified as dangerous according to Directive 67/548/EEC.

**Other hazards** - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C<sub>9</sub>H<sub>16</sub>O<sub>2</sub>  
Molecular Weight : 156,22 g/mol

| CAS-No.                          | EC-No.    | Classification | Concentration |
|----------------------------------|-----------|----------------|---------------|
| <b>Nonan-4-olide</b><br>104-61-0 | 203-219-1 | -              | -             |

## 4. FIRST AID MEASURES

### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration

### In case of skin contact

Wash off with soap and plenty of water.

### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Avoid breathing vapors, mist or gas.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Normal measures for preventive fire protection.

### Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

#### Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

For prolonged or repeated contact use protective gloves.

#### Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum).

#### Hygiene measures

General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form : liquid  
Colour : colourless

### Safety data

pH : no data available  
Melting point : no data available  
Boiling point : 121 - 122 °C at 8 hPa - lit.  
Flash point : 113 °C - closed cup  
Ignition temperature : no data available  
Lower explosion limit : no data available  
Upper explosion limit : no data available  
Density : 0,976 g/cm<sup>3</sup> at 25 °C  
Water solubility : no data available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents  
Strong oxidizing agents, Strong bases

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD<sub>50</sub> Oral - rat - 6.600 mg/kg  
LD<sub>50</sub> Dermal - rabbit - > 5.000 mg/kg

### Skin corrosion/irritation

Skin - rabbit -  
Skin - rabbit -

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### Reproductive toxicity

no data available

### Specific target organ toxicity - single exposure

no data available

### Specific target organ toxicity - repeated exposure

no data available

### Aspiration hazard

no data available

### Potential health effects

**Inhalation** : May be harmful if inhaled. May cause respiratory tract irritation.  
**Ingestion** : May be harmful if swallowed.  
**Skin** : May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes** : May cause eye irritation.

### Signs and Symptoms of Exposure

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Additional Information

RTECS: LU3675000

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### ADR/RID

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

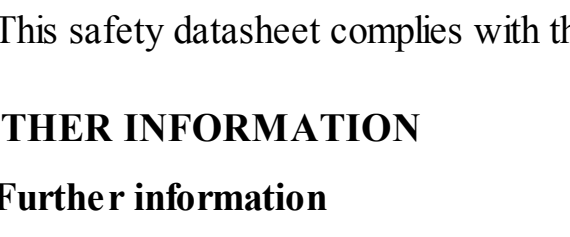
## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

## 16. OTHER INFORMATION

### Further information

For R&D use only. Not for drug, household or other uses.



www.lookchem.com

### WARRANTY:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.