

## Safety Data Sheet

# JRCURE 907

Version : V1.0.0.1

Creation Date : 2015/05/29

Revision Date : 2015/05/29

\* According to UN GHS (the 5th revised edition)



久日新材  
JIURI NEW MATERIALS

## 1 Identification of the chemical and supplier

### Product identifier

|                   |  |
|-------------------|--|
| Product Name      | JRCURE 907   |
| Synonyms          | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one |
| CAS No.           | 71868-10-5   |
| EC No.            | 400-600-6  |
| Molecular Formula | C <sub>15</sub> H <sub>21</sub> NO <sub>2</sub> S        |

### Relevant identified uses of the substance or mixture and uses advised against

|                          |                              |
|--------------------------|------------------------------|
| Relevant identified uses | Used for Photoinitiator etc. |
| Uses advised against     | No information available     |

### Details of the supplier of the Safety Data Sheet

|                        |  |
|------------------------|--|
| Name of the company    | TIANJIN JIURI NEW MATERIALS CO.,LTD  |
| Address of the company | C-5/6, Vision Hill, No.1 Gonghua Road, Huayuan Hi-tech Park, Tianjin, China. |
| Post code              | 300384   |
| Telephone number       | 022-58889235   |
| Fax number             | 022-58889249   |
| E-mail address         | erica@jiurichem.com  |

### Emergency phone number

|                        |              |
|------------------------|--------------|
| Emergency phone number | 022-58889220 |
|------------------------|--------------|

## 2 Hazards identification

### Hazard classification according to GHS

|  |             |
|--|-------------|
| Acute toxicity-oral                                    | Category 4  |
| Reproductive toxicity                                  | Category 1B |
| Hazardous to the aquatic environment, long-term hazard | Category 2  |

### Label elements

|                   |               |
|-------------------|---------------|
| Hazard pictograms |               |
| Signal word       | <b>Danger</b> |

### Hazard statements

|      |   |
|------|---|
| H302 | Harmful if swallowed                            |
| H360 | May damage fertility or the unborn child        |
| H411 | Toxic to aquatic life with long lasting effects |

## Precautionary statements

### Prevention

|      |  |
|------|--|
| P264 | Wash thoroughly after handling.  |
| P270 | Do not eat, drink or smoke when using this product.                        |
| P273 | Avoid release to the environment.  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

### Response

|           |  |
|-----------|--|
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/ doctor/if you feel unwell. |
| P308+P313 | IF exposed or concerned: Get medical advice/ attention.        |
| P330      | Rinse mouth.   |
| P391      | Collect spillage.  |

### Storage

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

### Disposal

|      |   |
|------|---|
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|------|---|

## Hazard description

|                                      |   |
|--------------------------------------|---|
| <b>Physical and chemical hazards</b> | Solid. Does not mix with water. Sinks in water. Harmful if swallowed. Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Avoid release to the environment. Refer to special instructions/Safety data sheets.   |
| <b>Health hazards</b>                | Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.<br>If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.<br>Accidental ingestion of the material may be harmful.<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.<br>Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. |
| <b>Environmental hazards</b>         | Harmful to the environment.   |

## 3 Composition/information on ingredients

| Component  | CAS No.    | EC No.    | Concentration (weight percent, %) |
|--|------------|-----------|-----------------------------------|
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71868-10-5 | 400-600-6 | ≥99                               |

## 4 First aid measures

### Description of first aid measures

|                                   |   |
|-----------------------------------|---|
| <b>General advice</b>             | Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.   |
| <b>Eye contact</b>                | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if fell uncomfortable.  |
| <b>Skin contact</b>               | Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if fell uncomfortable.  |
| <b>Ingestion</b>                  | Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.   |
| <b>Inhalation</b>                 | Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately. |
| <b>Protecting of first-aiders</b> | Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.  |

### Most important symptoms and effects, both acute and delayed

|   |                 |
|---|-----------------|
| 1 | See section 11. |
|---|-----------------|

### Indication of any immediate medical attention and special treatment needed

|   |                          |
|---|--------------------------|
| 1 | Treat symptomatically.   |
| 2 | Symptoms may be delayed. |

## 5 Firefighting measures

### Extinguishing media

|                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | Dry chemical, carbon dioxide, alcohol-resistant foam etc.              |
| <b>Unsuitable extinguishing media</b> | There is no restriction on the type of extinguisher which may be used. |

### Specific hazards arising from the substance or mixture

|   |  |
|---|--|
| 1 | Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. |
| 2 | Combustion of vapor and liquid may produce carbon monoxide, carbon dioxide and other hazardous gases.  |
| 3 | Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). |

### Advice for firefighters

|   |  |
|---|--|
| 1 | Alert Fire Brigade and tell them location and nature of hazard.                  |
| 2 | Wear breathing apparatus plus protective gloves.                                 |
| 3 | Prevent, by any means available, spillage from entering drains or water courses. |
| 4 | Use water delivered as a fine spray to control fire and cool adjacent area.      |

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

|   |   |
|---|---|
| 1 | Remove all sources of ignition. Ensure adequate ventilation. Take precautionary measures against static discharges. |
|---|---|

|   |  |
|---|--|
| 2 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid breathing vapors and contacting with skin and eyes. |
| 3 | Remove all sources of ignition. Ensure adequate ventilation. Take precautionary measures against static discharges.  |

### Environmental precautions

|   |   |
|---|---|
| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Do not let product enter drains.                      |

### Methods and materials for containment and cleaning up

|   |  |
|---|--|
| 1 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.                                     |
| 2 | Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding. |
| 3 | Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.       |

## 7 Handling and storage

### Precautions for handling

|   |   |
|---|---|
| 1 | Handling is performed in a well ventilated place.           |
| 2 | Wear suitable protective equipment.                         |
| 3 | Avoid contact with skin and eyes. Avoid inhalation of dust. |
| 4 | Keep away from heat/sparks/open flames/ hot surfaces.       |

### Precautions for storage

|   |   |
|---|---|
| 1 | Keep containers tightly closed in a dry, cool and well-ventilated place.                          |
| 2 | Keep away from heat/sparks/open flames/ hot surfaces.   |
| 3 | Store away from incompatible materials such as oxidizing agents and other incompatible materials. |
| 4 | Store away from foodstuff containers.   |

## 8 Exposure controls/personal protection

### Control parameters

#### ◆ Occupational Exposure limit values

| Component  | Country/Region | Limit value - Eight hours |                   | Limit value - Short term |                   |
|--|----------------|---------------------------|-------------------|--------------------------|-------------------|
|  |                | ppm                       | mg/m <sup>3</sup> | ppm                      | mg/m <sup>3</sup> |
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one<br>71868-10-5 | Australia      | -                         | -                 | -                        | -                 |
|  | Denmark        | -                         | -                 | -                        | -                 |
|  | Germany (AGS)  | -                         | -                 | -                        | -                 |
|  | Ireland        | -                         | -                 | -                        | -                 |
|  | South Korea    | -                         | -                 | -                        | -                 |
|  | USA(OSHA)      | -                         | -                 | -                        | -                 |

#### ◆ Biological limit values

|                                |                          |
|--------------------------------|--------------------------|
| <b>Biological limit values</b> | No information available |
|--------------------------------|--------------------------|


### ◆ Monitoring methods

|   |  |
|---|--|
| 1 | EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents |
|---|--|

### | Engineering controls

|   |  |
|---|--|
| 1 | Ensure adequate ventilation, especially in confined areas.                             |
| 2 | Ensure that eyewash stations and safety showers are close to the workstation location. |
| 3 | Use explosion-proof electrical/ventilating/lighting/equipment.                         |

### | Personal protection equipment

|                          |   |
|--------------------------|---|
| General requirement      |   |
| Eye protection           | Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).  |
| Hand protection          | Protective gloves ( such as butyl rubber ) , approved by EN 374(EU).  |
| Respiratory protection   | Use appropriate respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended Filter type: low boiling organic solvent, Type AX, Brown, conforming to EN371. |
| Skin and body protection | Wear fire/flame resistant/retardant clothing and antistatic boots.  |

## 9 Physical and chemical properties

### | Physical and chemical properties

|   |                           |
|---|---------------------------|
| Appearance                              | White or off-white powder |
| Odor                                    | No information available  |
| Odor threshold                          | No information available  |
| pH                                      | Not applicable            |
| Melting point/freezing point            | 73-76°C                   |
| Initial boiling point and boiling range | 348.8°C ( 760 mmHg )      |
| Flash point                             | 165°C                     |
| Evaporation rate                        | ≤0.25%                    |
| Flammability(solid, gas)                | Not flammable             |
| Upper/lower explosive limits            | Not applicable            |
| Vapor pressure                          | 1.2*10 <sup>-7</sup> kPa  |
| Vapor density                           | > 1 ( air=1.0 )           |
| Relative density                        | 1.21 ( 20°C , water=1.0 ) |
| Solubility                              | Partly miscible           |
| n-octanol/water partition coefficient   | 3.09                      |
| Auto-ignition temperature               | 380°C                     |
| Decomposition temperature               | > 200°C                   |
| Viscosity                               | No information available  |

## 10 Stability and reactivity

**Stability and reactivity**

|   |   |
|---|---|
| <b>Reactivity</b>                         | No information available.                             |
| <b>Chemical stability</b>                 | Stable under proper operation and storage conditions. |
| <b>Possibility of hazardous reactions</b> | No information available.                             |
| <b>Conditions to avoid</b>                | Incompatible materials, heat, flame and spark.        |
| <b>Incompatible materials</b>             | Oxidizing agents , strong acids, bases.               |
| <b>Hazardous decomposition products</b>   | Carbon monoxide and nitrogen oxide , sulfur oxide.    |

**11 Toxicological information****Acute toxicity**

| Component  | Cas No.    | LD <sub>50</sub> (oral) | LD <sub>50</sub> (dermal) | LC <sub>50</sub> (inhalation) |
|--|------------|-------------------------|---------------------------|-------------------------------|
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71868-10-5 | 1984mg/kg (rat)         | > 2000mg/kg (rabbit)      | No information available      |

**Others**

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met.   |
| <b>Serious eye damage/irritation</b>     | Based on available data, the classification criteria are not met.   |
| <b>Respiratory or skin sensitization</b> | Based on available data, the classification criteria are not met.   |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met.   |
| <b>Carcinogenicity</b>                   | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one is not identified as probable, possible or confirmed human carcinogen by IARC. |
| <b>Reproductive toxicity</b>             | May damage fertility or the unborn child.   |
| <b>STOT-single exposure</b>              | Based on available data, the classification criteria are not met.   |
| <b>STOT-repeated exposure</b>            | Based on available data, the classification criteria are not met.   |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met.   |

**12 Ecological information****Toxicity**

| Component  | Cas No.    | Fish                     | Crustaceans              | Algae                    |
|--|------------|--------------------------|--------------------------|--------------------------|
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71868-10-5 | No information available | No information available | No information available |

**Others**

|   |   |
|---|---|
| <b>Persistence and degradability</b>      | Water/Soil : High; Air: High  |
| <b>Bioaccumulative potential</b>          | High (Log KOW = 2.7264)   |
| <b>Mobility in soil</b>                   | Low (KOC = 356.8)   |
| <b>Results of PBT and vPvB assessment</b> | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII. |

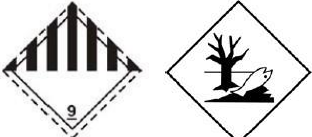
## 13 Disposal considerations

### Disposal considerations

|                                 |   |
|---------------------------------|---|
| <b>Waste chemicals</b>          | Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.                      |
| <b>Contaminated packaging</b>   | Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible |
| <b>Disposal recommendations</b> | Refer to section 13.1 and 13.2.   |

## 14 Transport information

### Label

|       |   |
|-------|---|
| Label |  |
|-------|---|

### Transport information (IMDG-CODE, ICAO/IATA-DG, UN-ADR)

|  |  |
|--|--|
| <b>UN number</b>                         | 3077   |
| <b>UN proper shipping name</b>           | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| <b>Transport hazard class</b>            | 9  |
| <b>Transport subsidiary hazard class</b> | -  |
| <b>Packing group</b>                     | III  |

## 15 Regulatory information

### International chemical inventory

| Component  | EINECS     | TSCA   | DSL    | IECSC      | NZLOC  | PICCS  | KECI   |
|--|------------|--------|--------|------------|--------|--------|--------|
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | Not Listed | Listed | Listed | Not Listed | Listed | Listed | Listed |

### Chinese chemical inventory ( 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one )

|  |            |
|--|------------|
| 《Highly toxic chemicals directory》   | Not Listed |
| 《Dangerous chemicals directory used to manufacture exploder》                   | Not Listed |
| 《National dangerous wastes directory》 annex A                                  | Not Listed |
| 《Strict limits on the import and export of toxic chemicals directory in China》 | Not Listed |
| 《List of Import and Export of Controlled ODS in China》                         | Not Listed |
| 《List of additives used in food containers and packaging materials in China》   | Not Listed |

## 16 Other information

### Information on revision

|                            |   |
|----------------------------|---|
| <b>Creation Date</b>       | 2015/05/29  |
| <b>Revision Date</b>       | 2015/05/29  |
| <b>Reason for revision</b> | Modified according to the requirements of UN GHS( fifth revision) and GB/T 17519. |

## Reference

- [1]IPCS: The International Chemical Safety Cards (ICSC) ,website: <http://www.ilo.org/dyn/icsc/showcard.home>
- [2]IARC , website: <http://www.iarc.fr/>
- [3]OECD: The Global Portal to Information on Chemical Substances, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- [4]CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- [5]NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- [6]EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>
- [7]U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- [8]Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

## Abbreviations and acronyms

|   |  |
|---|--|
| <b>CAS</b> –Chemical Abstracts Service  | <b>TSCA</b> - United States Toxic Substances Control Act Inventory |
| <b>EINECS</b> - European Inventory of Existing Commercial Chemical Substances | <b>DSL</b> - Canadian Domestic Substances List                     |
| <b>PICCS</b> - Philippines Inventory of Chemicals and Chemical Substances     | <b>NZIOC</b> -New Zealand Inventory of Chemicals                   |
| <b>IECSC</b> - China Inventory of Existing Chemical Substances                | <b>KECI</b> - Existing and Evaluated Chemical Substances           |
| <b>PC-STEL</b> - Short term exposure limit                                    | <b>PC-TWA</b> - Time Weighted Average                              |
| <b>DNEL</b> - Derived No Effect Level   | <b>IARC</b> - International Agency for Research on Cancer          |
| <b>RPE</b> - Respiratory Protective Equipment                                 | <b>PNEC</b> –Predicted No Effect Concentration                     |
| <b>LC<sub>50</sub></b> - Lethal Concentration 50%                             | <b>LD<sub>50</sub></b> - Lethal Dose 50%                           |
| <b>NOEC</b> -No Observed Effect Concentration                                 | <b>EC<sub>50</sub></b> - Effective Concentration 50%               |
| <b>PBT</b> - Persistent, Bioaccumulative, Toxic                               | <b>POW</b> - Partition coefficient Octanol:Water                   |
| <b>BCF</b> - Bioconcentration factor (BCF)                                    | <b>vPvB</b> - very Persistent, very Bioaccumulative                |
| <b>CMR</b> - Carcinogens, mutagens or substances toxic to reproduction        |  |
| <b>CAS</b> –Chemical Abstracts Service  | <b>TSCA</b> - United States Toxic Substances Control Act Inventory |
| <b>EINECS</b> - European Inventory of Existing Commercial Chemical Substances | <b>DSL</b> - Canadian Domestic Substances List                     |
| <b>PICCS</b> - Philippines Inventory of Chemicals and Chemical Substances     | <b>NZIOC</b> -New Zealand Inventory of Chemicals                   |
| <b>IECSC</b> - China Inventory of Existing Chemical Substances                | <b>KECI</b> - Existing and Evaluated Chemical Substances           |

## Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 5th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user' s reference. Users should make their independent judgment of suitability of this information for their



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