SECTION 1: Identification of the substance/mixture and of the company

Product Identifier

Product Name: PowerCure™ 907

Chemical Name: 2-Methyl-4′-(methylthio)-2-morpholinopropiophenone

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

Relevant applications identified: For Industrial Use

Details of the supplier of the safety data sheet

Company: TinToll Performance Materials Co., Ltd.
4F, Building 01, Xincheng Technology Park, No. 69 Olympic Avenue, Nanjing, China
Email: SDS@Tintoll.com

Emergency Telephone Number: +86-25-8468-0091

SECTION 2: Hazardous identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302
Reproductive toxicity (Category 1B), H360FD
Long-term (chronic) aquatic hazard (Category 2), H411
For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word: Danger

Hazard statement(s)

H302: Harmful if swallowed.
H360FD: May damage fertility. May damage the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P202: Do not handle until all safety precautions have been read and understood.
P264: Wash skin thoroughly after handling.

P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none

Restricted to professional users.

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word	Danger
Hazard statement(s)	
H360FD	May damage fertility. May damage the unborn child.
Precautionary statement(s)	
P202	Do not handle until all safety precautions have been read and understood.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Substances

Formula:	$C_{15}H_{21}NO_2S$
Molecular weight:	279,40 g/mol
CAS-No. :	71868-10-5
EC-No. :	400-600-6

Component	Classification	Concentration
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No.1907/2006 (REACH)		
CAS-No. 71868-10-5 EC-No. 400-600-6	Acute Tox. 4; Repr. 1B; Aquatic Chronic 2; H302, H360FD, H411	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO_2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Sulfur oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe

distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area.

Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

SECTION 8: Exposure Controls/Personal Protection

Control parameters

Ingredients with workplace control parameters

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	solid
Color	No data available
Odor	No data available
Melting point/freezing point	Melting point/range: 74 - 76 °C - lit.
Initial boiling point and boiling range	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Flash point	> 165 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Vapor pressure	No data available
Density	1,21 at 23 °C - OECD Test Guideline 109
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

No data available

SECTION 10: Stability And Reactivity

Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

No data available

Conditions to avoid

Strong heating

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11:Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 1.984 mg/kg

(OECD Test Guideline 401)

Oral: absorption

Inhalation: No data available

LD50 Dermal - Rat - > 2.000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Method: OECD Test Guideline 471

Result: negative

Carcinogenicity

No data available

Reproductive toxicity
May damage the unborn child.
May damage fertility.
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
Endocrine disrupting properties
Product:
Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Repeated dose toxicity - Rat - Oral - NOAEL (No observed adverse effect level) - 75 mg/kg
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
After absorption:
We have no description of any toxic symptoms.
Further data:
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological Effects

Toxicity
Toxicity to fish
LC50 - Danio rerio (zebra fish) - 9 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 15,3 mg/l - 24 h
(OECD Test Guideline 202)
Toxicity to algae
ErC50 - Desmodesmus subspicatus (green algae) - 1,6 mg/l - 72 h
(OECD Test Guideline 201)
NOEC - Desmodesmus subspicatus (green algae) - 0,86 mg/l - 72 h
(OECD Test Guideline 201)
Toxicity to bacteria

EC50 - activated sludge - > 100 mg/l

Persistence and degradability

Biodegradability

Result: 0 % - Not readily biodegradable.

(OECD Test Guideline 301B)

Result: 1 % - Not readily biodegradable.

(OECD Test Guideline 301E)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects

Discharge into the environment must be avoided.

SECTION 13:Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14:Transport Information

UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one)
(2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one)
(2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one)
IATA: Environmentally hazardous substance, solid, n.o.s.
(2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one)
(2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packing group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine Pollutant: yes IATA: yes

Special precautions for user

Tunnel restriction code: (-)

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids. Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9

SECTION 15:Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

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

Authorizations and/or restrictions on use

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59):
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII):
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances: ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.
Take note of Dir 94/33/EC on the protection of young people at work.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16:Other Information

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
H360FD May damage fertility. May damage the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Further information

It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.