SAFETY DATA SHEET

Photoinitiator 907

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Photoinitiator 907

Chemical name 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

CAS number 71868-10-5

Recommended use of the chemical and restrictions on use

Application Photoinitiator.

Uses advised against Use only for intended applications.

Details of the supplier of the safety data sheet

Supplier

DONGGUAN BAOXU CHEMICAL TECHNOLOGY LTD

ROOM 1118 CAIJIN BUSINESS BUILDING, NAN CHENG DISTRICT, DONGGUAN, GUANGDONG, CHINA

Tel 769-22821082 Fax 769-22821083 Tel 86-18566530506

Emergency telephone number

Emergency telephone Italy +39 0362 512868

EMEA +1 760 476 3961 Access code 333 293. US +1 760 476 3962 Access code 333 293.

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Repr. 1B - H360Df

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Pictogram







Signal word Danger

Hazard statements H302 Harmful if swallowed.

H360Df May damage the unborn child. Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash contaminated skin 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.

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. P405 Store locked up.

P501 Dispose of contents/ container in accordance with national regulations.

Contains 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Substances

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

> 99%

CAS number: 71868-10-5

Classification

Acute Tox. 4 - H302 Repr. 1B - H360Df Aquatic Chronic 2 - H411

Morpholine 0.025 - <0.25%

CAS number: 110-91-8

Classification

Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 3 - H311 Acute Tox. 3 - H331 Skin Corr. 1A - H314 Eye Dam. 1 - H318

The full text for all hazard statements is displayed in Section 16.

Product name Omnirad 907

CAS number 71868-10-5

4. First-aid measures

Description of first aid measures

General information Remove affected person from source of contamination. Get medical attention.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Place

unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering

oxygen. If breathing stops, provide artificial respiration. Get medical attention.

Ingestion Move affected person to fresh air and keep warm and at rest in a position comfortable for

breathing. Loosen tight clothing such as collar, tie or belt. Do not induce vomiting unless under the direction of medical personnel. Rinse nose and mouth with water. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the

recovery position and ensure breathing can take place. Get medical attention.

Skin Contact Rinse immediately contaminated clothing and skin with plenty of water before removing

clothes. Wash with plenty of soap and water. Continue to rinse for at least 15 minutes. Get

medical attention if any discomfort continues.

Eye contact Remove affected person from source of contamination. Remove any contact lenses and open

eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes and get medical

attention.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue. For

personal protection, see Section 8.

Most important symptoms and effects, both acute and delayed

General information Possible risk of adverse reproductive effects. See Section 11 for additional information on

health hazards.

Inhalation Vapors may irritate throat/respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact Prolonged skin contact may cause temporary irritation.

Eye contact May be slightly irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Dust may form explosive mixture with air. Thermal decomposition or combustion products

may include the following substances: Toxic and corrosive gases or vapors.

Hazardous combustion

products

Thermal decomposition or combustion products may include the following substances: Toxic

and corrosive gases or vapors. Carbon monoxide (CO).

Advice for firefighters

Protective actions during firefighting

In case of fire: Evacuate area. No action shall be taken without appropriate training or involving any personal risk. Fight fire from safe distance or protected location. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Contain and collect extinguishing water. Avoid the spillage or runoff entering drains, sewers or watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

No smoking, sparks, flames or other sources of ignition near spillage. Take precautionary measures against static discharges. Do not touch or walk into spilled material. Avoid inhalation of dust and contact with skin and eyes. Do not enter storage areas or confined spaces unless adequately ventilated. Use suitable respiratory protection if ventilation is inadequate. Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions

Environmental precautions

Avoid or minimize the creation of any environmental contamination. Avoid the spillage or runoff entering drains, sewers or watercourses. Environmental Manager must be informed of all major spillages. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Eliminate all ignition sources if safe to do so. If involved in a fire, shut off flow if it can be done without risk. Provide adequate ventilation. Do not touch or walk into spilled material. To prevent release, place container with damaged side up. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

Reference to other sections

See Section 1 for emergency contact information. For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions

For use in industrial installations or professional treatment only. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wear protective clothing as described in Section 8 of this safety data sheet. Do not handle broken packages without protective equipment. Avoid breathing dust. Mechanical ventilation or local exhaust ventilation may be required. If ventilation is inadequate, suitable respiratory protection must be worn. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Do not empty into drains.

Advice on general occupational hygiene

Do not smoke in work area. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Take off immediately all contaminated clothing and wash it before reuse. Eye wash facilities and emergency shower must be available when handling this product. Warn cleaning personnel of any hazardous properties of the product.

Conditions for safe storage, including any incompatibilities

Storage precautions

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep in a cool, well ventilated place. Protect from freezing and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidizing materials, heat and flames. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

Storage class

Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Exposure controls

Protective equipment







Appropriate engineering controls

Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required. Observe any occupational exposure limits for the product or ingredients. Static electricity and formation of sparks must be prevented.

Eye/face protection

Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Refer to OSHA 1910.137 for information on material and design requirements and test methods.

Hygiene measures

Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented. Wash promptly if skin becomes contaminated. Take off immediately all contaminated clothing and wash it before reuse. Change work clothing daily before leaving workplace. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Particulate filters should comply with European Standard EN143. Gas and combination filter cartridges should comply with OSHA 1910.134. Check that the respirator fits tightly and the filter is changed regularly. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Powder.

Color White/off-white.

Odor Mild.

Odor threshold Not determined.

pH Not determined.

Melting point 74.6°C

Initial boiling point and range Not determined.

Flash point 165°C PMCC (Pensky-Martens closed cup).

Evaporation rate Not relevant.

Flammability (solid, gas) Not determined.

Upper/lower flammability or

explosive limits

Not determined.

Vapor pressure 0.0002 Pa @ 25°C

Vapor density Not determined.

Relative density 1.21 @ 33°C

Bulk density 500 kg/m³

Solubility(ies) 0.0179 g/l water @ 20°C

Auto-ignition temperature 380°C

Decomposition Temperature > 190°C

Viscosity Not relevant.

Explosive properties Not considered to be explosive.

Oxidizing properties Does not meet the criteria for classification as oxidizing.

Molecular weight 279.40 g/mol

10. Stability and reactivity

Reactivity Under normal conditions of storage and use, no hazardous reactions will occur.

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous

reactions

No potentially hazardous reactions known.

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Avoid dust close to ignition sources.

Materials to avoid Strong acids. Strong alkalis. Oxidizing agents.

Hazardous decomposition

products

Does not decompose when used and stored as recommended.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅o) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 1,353.54

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 300,000.0

Acute toxicity - inhalation

Notes (inhalation LC50) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 3,000.0

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivoBased on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Possible risk of adverse reproductive effects.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information Prolonged or repeated exposure may cause the following adverse effects: Possible risk of

adverse reproductive effects.

Inhalation Vapors may irritate throat/respiratory system.

Ingestion May cause discomfort if swallowed.

Skin Contact Prolonged skin contact may cause temporary irritation.

Eye contact May be slightly irritating to eyes.

Acute and chronic health

hazards

This product contains a substance that has not yet been fully tested and may have

unforeseen effects.

12. Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Bioaccumulative potential

Bio-Accumulative Potential Bioaccumulation is unlikely.

Mobility in soil

Mobility No data available.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information When

When handling waste, the safety precautions applying to handling of the product should be considered. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Do not cut or weld used containers unless they have

been thoroughly cleaned internally.

Disposal methods Dispose of contents/container in accordance with national regulations. Waste is suitable for

incineration.

14. Transport information

UN Number

UN No. (TDG) 3077

UN No. (IMDG) 3077

UN No. (ICAO) 3077

UN No. (DOT) Not applicable.

UN proper shipping name

Proper shipping name (TDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS 2-methyl-1-

(4-methylthiophenyl)-2-morpholinopropan-1-one)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS 2-methyl-1-

(4-methylthiophenyl)-2-morpholinopropan-1-one)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS 2-methyl-1-

(4-methylthiophenyl)-2-morpholinopropan-1-one)

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

TDG class 9

TDG label(s) 9

IMDG Class 9

ICAO class/division 9

Transport labels



DOT transport labels

No transport warning sign required.

Packing group

TDG Packing Group III
IMDG packing group III
ICAO packing group III

DOT packing group Not applicable.

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS F-A, S-F

DOT reportable quantity

Not applicable.

Not applicable.

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

Regulatory References U.S. DOL, OSHA, 29 CFR 1910.1200, The Hazard Communication Standard (HCS).

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List

None of the ingredients are listed or exempt.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US-TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Japan - MITI

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines - PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

Taiwan - NECI All the ingredients are listed or exempt.

16. Other information

General information Only trained personnel should use this material.

Key literature references and

sources for data

REACH dossier information. Supplier's information.

Revision comments Product name change. NOTE: Lines within the margin indicate significant changes from the

previous revision.

Revision date 10/11/2017

Revision

Supersedes date 9/9/2016

SDS No. 760

SDS status Approved.

Hazard statements in full H226 Flammable liquid and vapor.

H302 Harmful if swallowed. H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H360Df May damage the unborn child. Suspected of damaging fertility.

H360Df May damage the unborn child if swallowed. Suspected of damaging fertility if

swallowed.

H411 Toxic to aquatic life with long lasting effects.

NFPA - health hazard Temporary incapacitation, injury. (2)

NFPA - flammability hazard Burns only if pre-heated. (1)

NFPA - instability hazard Unstable if heated. (1)

ACA HMIS Health rating. Moderate hazard. (2)

ACA HMIS Flammability

rating.

Burns only if pre-heated. (1)

ACA HMIS Physical hazard

rating.

Unstable if heated. (1)

ACA HMIS Personal protection rating.

X Ask your supervisor for guidance

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.