

Safety technical specification

Omnirad 127 (FORMER IRGACURE®127)

Part 1: Chemicals and corporate identity

Product Identification

product name Omnirad 127 (FORMER IRGACURE®127)

Chemical Abstracts Registration Number (cas number) 474510-57-1

Recommended use and restricted use of the substance or mixture

Recommended use Photoinitiator.

Restricted use No specific prohibited

uses were identified. Supplier details

supplier www.njwali.com
Nanjing Vali Chemical Technology Co., Ltd.
No. 88, Yanyao Road, Qixia District
Nanjing 210000
13705167393@163.com
T: +86 025 85328161
F: +86 025 83373260

Emergency call

Emergency call CHINA +86 15106105375

Part 2: Overview of Hazards

Classification of substances or mixtures

Physical danger Non-such

Health hazard Specific target organ toxicity - repeated exposure category 2 - h373

Environmental hazard Hazardous to the aquatic environment - acute hazard category 1 - h400

Label

element



Warning word caveat

Risk statement H373 May cause damage to organs (kidney.) by prolonged or repeated exposure.
H400 is extremely toxic to aquatic life.

Precautionary statement P260 Do not breathe dust.
P273 Avoid release to the environment.
P314 If you feel unwell, seek medical advice/attention.
P391 Collect spillage.
P501 Dispose of contents/containers in accordance with national regulations.

Omnirad 127 (FORMER IRGACURE®127)

Supplementary label information Please

refer to the safety data sheet. Other danger

This product does not contain any substances classified as persistent, bioaccumulative and toxic (PBT) or highly persistent, highly cumulative (vPvB).

Part 3: Composition/information information

substance

product name Omnirad 127 (FORMER IRGACURE®127)

606-140-00-4

Chemical Abstracts Registration Number (cas number) 474510-57-1

Part 4: First aid measures

First aid measures

Overview Transfer affected people away from sources of pollution. Seek medical attention.

Inhalation Remove the victim to fresh air and keep in a comfortable position. Place the comatose in a rest position and make sure you can take a breath. Keep the airway open. Loosen tight clothing such as a neckline, tie or belt. When breathing is difficult, appropriately trained personnel can assist the affected person to deliver oxygen. If breathing stops, perform artificial respiration. Seek medical attention.

Ingestion Transfer affected people to fresh air and keep warm and comfortable to rest. Loosen tight clothing such as a neckline, tie or belt. Do not induce vomiting unless directed by a medical professional. Rinse the nose and mouth with water. It is absolutely forbidden to administer any item to a comatose person. Place the comatose in a rest position and make sure you can take a breath. Seek medical attention.

skin contact Rinse the contaminated clothing and skin with water immediately, then take off your clothes. Wash with plenty of water. Rinse at least continuously with water 15 minutes. Get medical attention if discomfort persists.

eye contact Transfer affected people away from sources of pollution. Remove any contact lenses and open your eyes. Rinse with water. Rinse with water for at least 15 minutes and consult a doctor.

Firefighter protection First aid personnel should wear appropriate protective equipment during any rescue procedure. For personal protection, see section 8. Most important acute and delayed symptoms/effects

Overview See section 11 for more information on health hazards.

Inhalation Vapors may irritate the throat/respiratory system.

Ingestion If swallowed, it may cause discomfort. Prolonged or repeated exposure may cause the following adverse effects: May cause severe internal injuries.

skin contact Prolonged contact with the skin may cause short-term irritation.

eye contact May cause slight

irritation to the eyes. Indication of immediate

medical attention and special treatment

required if necessary

Doctor's notice Symptomatic treatment.

Part 5: Fire Fighting Measures

Modified date:

Extinguishing agent

Suitable extinguishing agent Use an extinguishing agent suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water spray. **Unsuitable extinguishing agent** Do not use jet water to extinguish the fire, as this will cause the fire to spread.

Specific hazards arising from the substance or mixture

Special danger Thermal decomposition or combustion products may include the following: Toxic and corrosive gases or vapors.

Omnirad 127 (FORMER IRGACURE®127)

Hazardous combustion products Thermal decomposition or combustion products may include the following:

Toxic and corrosive gases or vapors. Carbon monoxide (co). Special protective actions for firefighters

Protective action taken during fire fighting In case of fire: Evacuate the area. No action can be taken without proper training or any personal risk. From Ann

Extinguish fires at full distance or in protected areas. Located in the upwind direction to avoid inhalation of gases, vapors, smoke and fumes. Spray water cools the heated containers and removes them from the fire area without risk. Contain and collect fire water. Avoid spills or fire-fighting wastewater into drains, sewers or water systems. If there is a risk of water pollution, notify the relevant authorities.

Special protective equipment for firefighters Wear positive pressure self-contained breathing apparatus (scba) and appropriate protective clothing. The firefighter's clothing will

Part 6: Leakage emergency handling

provide protection against the basic level of the accident.

Worker protective measures, protective equipment and emergency procedures

Worker protection measures No smoking, sparks, open flames or other sources of ignition are allowed near the spill. Take precautions to prevent electrostatic discharge. Do not touch or walk into the spill. Avoid breathing vapors and skin and eyes. Do not enter storage areas or confined spaces unless there is adequate ventilation. If ventilation is poor, take appropriate respiratory protection. Wear the protection described in section 8 of this Safety Data Sheet clothes.

Environmental protection measures

Environmental protection measures Avoid or minimize any environmental pollution. Avoid spills or fire-fighting wastewater into drains, sewers or water systems. The environmental manager must be informed of all major leaks that have occurred. Leaks or uncontrolled discharge into the water system must be reported immediately to the EPA or other appropriate regulatory agency.

Methods and materials for containment and disposal of spilled chemicals

Clearing method Wear the protective clothing described in Section 8 of this Safety Data Sheet. If it is safe, eliminate all ignition sources. If trapped to
In the event of a fire, cut off the flow without risk. Provide adequate ventilation. Do not touch or walk into the spill. To prevent release, place the damaged container face up. Absorb with vermiculite, dry sand or soil and place in a container. Use a vacuum cleaner to remove spillage or collect with a shovel and broom or similar tool. Collect and place in a suitable waste disposal container and seal securely. For information on waste disposal, please refer to section 13.

Refer to

other parts See section 1 for emergency contact information. For personal protection, see section 8. See section 11 to learn about
for More information on health hazards. See Section 12 for additional information on ecological hazards. For information on waste disposal, please refer to section 13.
reference
to other
parts

Part 7: Handling and storage

Operational precautions

Precautions for use

Pregnant women or lactating women should not be exposed to this product if there is any risk of contact. Used only in industrial devices or professional treatments. Do not operate until you have read and understood all safety measures. Do not eat, drink or smoke when using this product. Wear the protective clothing described in Section 8 of this Safety Data Sheet. Do not handle damaged packaging without protective equipment. Avoid breathing vapors/spray. Mechanical or partial exhaust ventilation may be required. If ventilation is poor, appropriate respiratory protection equipment must be worn. Keep away from heat/hot surfaces/sparks/open flames/other ignition sources. No smoking. Take precautions to prevent electrostatic discharge. Do not discharge into the sewer.

General occupational health requirements do not smoke in the work area. Good personal hygiene practices should be implemented. At the end of each shift, wash before eating, smoking and using the toilet. If the skin is contaminated, wash it immediately. Immediately remove all contaminated clothing and wash it before reuse. Eyewash and emergency showers must be provided when handling this product. Alerts the cleaning personnel to any relevant hazardous characteristics of the product.

Storage considerations, including any incompatibilities

Storage precautions

Keep away from heat/hot surfaces/sparks/open flames/other ignition sources. No smoking. Store in a cool, well-ventilated area. Storage temperatures range between 7° c/44° f and 35° c/95° f. Do not store in an unconstrained state. Prevent freezing and direct sunlight. Protected from light. Keep away from food, beverages and animal feed storage. Keep away from oxidizing materials, heat sources and open flames. Stored in a defined cofferdam area to prevent discharge into sewers and/or water systems.

Omnirad 127 (FORMER IRGACURE®127)

Storage level

Chemical

storage. Specific end use

Specific end use

The intended use of this product is detailed in Section 1.2.

Part 8: Exposure controls and personal protection

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contact

control

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Proper engineering control

Provide adequate ventilation. Mechanical or partial exhaust ventilation may be required. Observe any occupational exposure limits for products or ingredients. Static electricity and sparks must be prevented from forming.

Eye/face protection

Tight safety glasses. Appropriate eye and face personal protective equipment should be worn. If there is an inhalation hazard, a full face respirator may be required.

Hand protection

If the risk assessment indicates that skin contact may occur, wear chemically resistant and impermeable gloves that meet the approved standards. To protect your hands from chemicals, wear gloves that are proven to be impermeable to chemicals and difficult to degrade. Wear protective gloves made of the following materials: butyl rubber. Nitrile rubber. Choosing the most suitable gloves should consult the glove supplier/manufacturer as they are familiar with the breakthrough time of the glove material. Taking into account the data specified by the glove manufacturer, check that the gloves retain their protective properties during use and replace them as soon as any degradation in properties is detected. It is recommended to change frequently.

Other skin and body protection Wear appropriate clothing to prevent any exposure to liquids and the possibility of repeated and prolonged exposure to vapors. Please refer to the relevant standards for information on materials and design requirements and test methods.

Health measures

Eye wash and safety showers are provided. Good personal hygiene practices should be implemented. If the skin is contaminated, wash it immediately. Immediately remove all contaminated clothing and wash it before reuse. Change work clothes daily before leaving the workplace. Do not eat, drink or smoke when using this product. At the end of each shift, wash before eating, smoking and using the toilet.

Respiratory protection

If the risk assessment indicates a possible inhalation of contaminants, wear protective equipment that meets the approved standards. A full face mask respirator with a replaceable filter element for the intended use should be worn. Check the respirator tightly and replace the filter regularly. Air-filled respirators must be worn in confined or poorly ventilated areas. Ensure that all respiratory protection

Modified date:

equipment is suitable for the intended use.

Environmental exposure controlEmissions from ventilation or process equipment should be checked to ensure they

Part 9: Physical and chemical properties

comply with environmental protection regulations.

Basic physical and chemical properties information

Exterior	powder.
colour	white.To light (or light).yellow.
Odour threshold	Not determined.
pH value	Not applicable.
Melting point	84.3°C
Initial boiling point and boiling range	333°C @ 973 hPa
Flash point	Scientific is not reasonable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not
applicable.Burning upper and lower	
limits or explosion limits	Not
determined.	

Omnirad 127 (FORMER IRGACURE®127)

Vapor Pressure	<0.00016 Pa @ 50°C
Vapor density	Not determined.
Relative density	1.195 @ 20°C
Bulk density	~ 700 kg/m³
Solubility	0.01 g/l water @ 20°C
Partition coefficient	log Kow: 2.3
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined.
Viscosity	Not determined.
Explosive characteristics	Not considered explosive.
Oxidation characteristics	The classification conditions for oxidizing properties are not satisfied.
Particle size	17 µm
Molecular weight	340.42 g/mol

Part 10: Stability and reactivity

Reactivity Stable under normal ambient temperature and when used according to recommended conditions.

stability Stable under normal ambient temperature and when used according to recommended conditions. May aggregate.

Possibility of dangerous reactions May aggregate.

Conditions to avoid Keep away from heat, sparks and open flames. Avoid exposure to high temperatures or direct sunlight. Protected from light. Materials to avoid strong acid, strong base, Oxidizer.

Dangerous decomposition product It will not decompose when used and stored according to the recommended

Part 11: Toxicological information

conditions.

**Information on
the effects of
toxicology acute
toxicity - oral**

Comment (orally ld50) LD50 >2000 mg/kg, orally, the rats did not meet the classification criteria based on available data.

Acute toxicity - transdermal

Comment (via skin ld50) LD50 >2000 mg/kg, percutaneous, rats do not meet the classification criteria based on available data.

Acute toxicity - inhalation

Comment (inhalation lc50) Based on the available data, the classification criteria are not met.

Skin corrosion/irritation

Modified date:

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

Serious eye damage/eye irritation

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

Respiratory sensitization

Respiratory sensitization Based on the available data,

the classification criteria are not met. Skin sensitization

Omnirad 127 (FORMER IRGACURE®127)

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

mutagenicity

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

Genotoxicity – in vivo Based on the available data,
the classification criteria are not met. Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity – fertility Based on the
available data, the classification criteria are not
met. Reproductive toxicity – development Based on
the available data, the classification criteria are not
met.

Specific target organ toxicity – one exposure

Specific target organ toxicity – one exposure Based on the available data, the classification criteria are not met.

Specific target organ toxicity – repeated exposure

Specific target organ toxicity – repeated exposure Prolonged or repeated contact may damage the organ.

Aspiration hazard

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

Overview Prolonged or repeated exposure may cause the following adverse effects: May cause internal injuries.

Inhalation Vapors may irritate the throat/respiratory system.

Ingestion If swallowed, it may cause discomfort.

skin contact Prolonged contact with the skin may cause short-term irritation.

eye contact May cause slight irritation to the eyes.

Acute and chronic health hazards This product contains a substance that has not been fully tested and may

Part 12: Ecological Information
have unforeseen effects.

toxicity Very toxic to aquatic life.

Acute aquatic toxicity

Semi-lethal concentration (l(e)c50) $0.1 < l(e)c50 \leq 1$

m coefficient (acute) 1

Acute toxicity – fish LC50, 96 hours: 3.5 mg/l, Brachydanio rerio

(zebrafish) Acute toxicity – Aquatic invertebrates EC50, 48 hours: 0.56
mg/l, large 蚤

Acute toxicity – aquatic plants EC50, 72 hours: >3 mg/l, Desmodesmus subspicatus

Modified date:

(acne-branched algae) Acute toxicity - Microorganisms EC20, 3 hours: >100 mg/l,
activated sludge

Chronic toxicity - no information
available in the early stages of
fish life.Chronic Toxicity - No
information available on aquatic
invertebrates.Persistence and
degradability

Persistence and degradability Not easy to biodegrade quickly.

Stability (hydrolysis) pH7 - half-life <10%: 5 days @ 25° C/77° F

Omnirad 127 (FORMER IRGACURE®127)

Potential bioaccumulation

Potential bioaccumulation Bioconcentration factor (BCF): < 10, Cyprinus

carpio (salmon) partition coefficient **log Kow: 2.3**

Mobility in soil

Mobility Not considered to be portable.

Surface Tension 67.3 mN/m @ 20°C

PBT and vPvB

assessment results

PBT and vPvB evaluation knots

fruit This product does not contain any substances classified as persistent, bioaccumulative and toxic (pbt) or highly persistent, highly cumulative. (vPvB) substance.

Other harmful effects

Other harmful effects There is no known information.

Part 13: Disposal

Disposal method

Overview Safety precautions applicable to product handling should be considered when handling waste. Waste, residues, empty containers, waste work clothes and contaminated cleaning materials should be collected in designated containers and their contents marked. The remaining waste products are handled by a licensed waste disposal contractor and those that cannot be recycled. Dispose of such products, process solutions, residues and by-products at all times in accordance with environmental and waste disposal regulations and the requirements of any local authority. Do not cut or weld used containers unless their interior has been thoroughly cleaned.

Disposal method Dispose of contents/containers in accordance with national regulations. The waste is

Part 14:

Transport

suitable for incineration disposal.

United Nations Dangerous Goods Code (un)

United Nations official shipping name (un shipping name)

Official shipping name (European Highway/Railway ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS (2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one)

Official shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS (2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one)

Official shipping name (air transport icao) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one)

Official shipping name (European river transport ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS (2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one)

Transport

hazard



Modified date:

label

The

packagi

ng

group

does

not

apply.

Environmental hazard

Environmentally

hazardous substances /

marine pollutants No.

Omnirad 127 (FORMER IRGACURE®127)

User's special

precautions do

not apply.

Tunnel driving restrictions (E)

According to marpol 73/78 Appendix ii and not applicable.

IBC Code Shipping Bulk

Part 15: Regulatory information

Safety, hygiene and environmental regulations specific to the substance or mixture

National regulations

Regulation No. 591, Regulations for the Safety Management of Hazardous Chemicals gb30000.2-2013 Part 2: Classification and Labelling of Chemicals Part 2: Explosives gb30000.3-2013 Classification and Labelling of Chemicals Part 3: flammable gas gb30000.4-2013 Chemicals Classification and Labeling Specifications Part 4: Aerosols gb30000.5-2013 Chemical Classification and Labeling Specifications Part 5: Oxidizing gases gb30000.6-2013 Chemical classification and labeling specifications Part 6: Pressurized gas gb30000. 7-2013 Chemicals Classification and Labeling Specifications Part 7: Flammable liquids gb30000.8-2013 Classification and labelling of chemicals Part 8: Flammable solids gb30000.9-2013 Classification and labelling of chemicals Part 9: Reaction substances and mixtures gb30000.10-2013 Classification and labelling of chemicals Part 10: Self-igniting liquid gb30000.11-2013 Classification and labelling of chemicals Part 11: Self-igniting solids gb30000.12-2013 Classification and labelling of chemicals Part 12: Self-heating substances and mixtures Gb30000.13-2013 Classification and labelling of chemicals - Part 13: Substances and mixtures of flammable gases released from water Gb30000.14-2013 Specification for the classification and labelling of chemicals Part 14: Oxidizing liquids gb30000.15-2013 Part 2: Specification for the classification and labelling of oxidized solids gb30000.16-2013 Part 6 : Organic peroxides gb30000.17-2013 Classification and labelling of chemicals - Part 17: Metallic corrosives gb30000.18-2013 Classification and labelling of chemicals - Part 18: Acute toxicity gb30000.19-2013 Classification and labeling of chemicals Specification Part 19: Skin corrosion/irritation gb30000.20-2013 Classification and labelling of chemicals Part 20: Serious eye damage/eye irritation gb30000.21-2013 Classification and labelling of chemicals Part 21: Respiratory or skin sensitization Gb30000.22-2013 Classification and labelling of chemicals - Part 22: Germ cell mutagenicity gb30000.23-2013 Classification and labelling of chemicals - Part 23: Carcinogenicity gb30000.24-2013 Chemical classification and labelling Part: Reproductive toxicity Gb30000.25-2013 Classification and labelling of chemicals - Part 25: Specific target organ toxicity - One-time exposure gb30000.26-2013 Classification and labelling of chemicals - Part 26: Specific target organ toxicity repeated exposure gb30000.27-2013 Chemistry Classification and labelling practices - Part 27: Aspiration hazards Gb30000.28-2013 Classification and labelling of chemicals - Part

Modified date:

28: Harm to the aquatic environment gb30000.29-2013
Classification and labelling of chemicals Part 29: Harm to the
ozone layer gb15258-2009 Preparation of chemical safety labels.
Gb-t 16483-2008 / MSDS content and project sequence

Directory status

European Union (einecs/elincs)

All ingredients are listed or exempted.

Canada (dsl/ndsl)

All ingredients are listed or exempted.

United States (tsca)

All ingredients are listed or exempted.

United States (TSCA) 12(b)

No ingredients are included or exempted.

Omnirad 127 (FORMER IRGACURE®127)

Australia (aics)

All ingredients are listed or exempted.

Japan (miti)

All ingredients are listed or exempted.

South Korea (keci)

All ingredients are listed or exempted.

China (iecsc)

All ingredients are listed or exempted.

Philippines (piccs)

All ingredients are listed or exempted.

New Zealand (nzioc)

All ingredients are listed or exempted.

Taiwan Province of China - ECSI

All ingredients are listed or exempted.

Part 16: Other information

Overview

Only trained personnel should use

these materials. Main references and sources Reach file

information. Supplier information. Modify the description

Product name changes. This is the

first release.

Modified date

2016/9/15

Safety Data Sheet (sds) No. 768

Safety Data Sheet (sds) status approved.

Risk statement

H373 May cause damage to organs (kidney.) by prolonged or repeated exposure.
H400 is extremely toxic to aquatic life.

Modified date:

This information is only relevant to the specific material specified and may not be valid for use in conjunction with any other material or process. This information is based on the company's latest knowledge and confidence and is considered to be accurate and reliable when marking dates. However, no warranty, warranty or liability statement is made for its accuracy, reliability or completeness. It is the responsibility of the user to ensure that this information is appropriate for their particular use.