



1. Identification of the chemical and supplier

1.1 Product identifier

Product name	JRCure DETX
Synonyms	2,4-diethylthioxanthone
CAS NO.	82799-44-8
EC NO.	280-041-0
Molecular formula	C ₁₇ H ₁₆ OS

1.2 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.

1.3 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.
Postcode	300384
Telephone number	+86-22-23811185
Fax number	+86-22-87186899
E-mail address	Carrie Wu (rui.wu@jiurichem.com)

1.4 Emergency phone number

Emergency phone Number	+86-22-58330700
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2. Hazards identification

2.1 Hazard classification according to GHS

Hazard classes/Hazard categories	Not considered a dangerous substance according to GHS (the 6th revised edition).
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2.2 Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

2.3 Hazard statements

Hazard statements	Not applicable
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2.4 Precautionary statements

◆ Prevention

Prevention	Not applicable.
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Safety Data Sheet

JRCure DETX

Version: V1.0.0.1

Creation Date: 2015/05/29

Revision Date: 2022/01/21

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* According to UN GHS (the 6th revise edition)



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JIURI NEW MATERIALS

◆ Response

Response	Not applicable.
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◆ Storage

Storage	Not applicable.
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◆ Disposal

Disposal	Not applicable.
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2.5 Hazard description

Physical and chemical hazards	Data conclusive but not sufficient for classification.
Health hazards	Data conclusive but not sufficient for classification.
Environment hazards	Data conclusive but not sufficient for classification.

3. Composition/Information on Ingredients

Component	CAS NO.	EC NO.	Concentration percent,%
2,4-diethylthioxanthone	82799-44-8	280-041-0	≥99.0

4. First Aid Measures

4.1 Description of First Aid Measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse opened eye for several minutes under running water. If irritation persists, consult an ophthalmologist.
Skin contact	Immediately wash with plenty of water and soap, and rinse thoroughly. If irritation persists, consult a physician.
Ingestion	Thoroughly rinse mouth with water and let 1 - 2 glasses of water be drunk. Do not induce vomiting. Call a physician. If unconscious place in recovery position and call a physician immediately. Never give anything by mouth to an unconscious person.
Inhalation	Remove affected person to fresh air. In case of unwellness, seek medical advice.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

4.2 Most important symptoms and effects, both acute and delayed

1	See section 11.
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4.3 Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
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2	Symptoms may be delayed.
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5. Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry powder, carbon dioxide (CO ₂). Fight larger fires with water spray or alcohol-resistant foam. Use fire extinguishing methods suitable to surrounding conditions.
Unsuitable extinguishing media	Strong water jet.

5.2 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	Slight fire hazard when exposed to heat or flame. Hazardous decomposition products: Toxic gases/vapours, e.g. carbon monoxide (CO), carbon dioxide (CO ₂), sulphur dioxide, smoke.
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).

5.3 Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus and full protective gear.
2	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method According to the surrounding situation is used.
3	In case of fire in the surroundings, keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so.
4	Uninvolved persons should evacuate to a safe place.

6. Accidental release measures

6.1 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.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

1	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
2	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
3	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. Handling and storage

7.1 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 formation of dust.
4	Keep away from heat/sparks/open flames/ hot surfaces.

7.2 Precautions for storage

1	Store in original containers.
2	Keep containers securely sealed.
3	Store in a cool, dry area protected from environmental extremes.
4	Store away from incompatible materials and foodstuff containers.

8. Exposure controls/personal protection

8.1 Control parameters

◆Occupational Exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
2,4-diethylthioxanthone CAS NO.: 82799-44-8	Australia	-	-	-	-
	Denmark	-	-	-	-
	Germany (AGS)	-	-	-	-
	Ireland	-	-	-	-
	South Korea	-	-	-	-
	USA(OSHA)	-	-	-	-

◆Biological limit values

Biological limit values	No information available.
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◆Monitoring methods

1	EN14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of
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exposure to chemical and biological agents .

8.2 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.

8.3 Personal protection equipment

General requirement	
Eye protection	Tightly fitting safety goggles (approved by EN166(EU) or NIOSH(US)).
Hand protection	Protective gloves (such as butyl rubber), approved by EN374(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	Pale yellow powder
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point	71.0-75.0°C at 101.3 kPa
Initial boiling point and boiling range	423.7°C at 101.3 kPa
Flash point	223°C(101.325kPa)(The software by ACD/Labs was not available, but the predicted flash point can be found online http://www.chemspider.com/Chemical-Structure.109489.html?rid=2351044f-015f-4a0c-9a90-3df18770c868&page_num=0.)
Evaporation rate	No information available
Flammability(solid, gas)	Non flammable
Upper/lower explosive limits	No information available
Vapor pressure	0 Pa (25°C)
Vapor density	No information available
Relative density	1.27(20°C)



Water solubility	0.008 mg/L at 25 °C
n-octanol/water partition coefficient	Log Kow (Log Pow): 6.5 at 20 °C
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

10. Stability and reactivity

Stability and reactivity

Reactivity	The substance is stable under normal storage and handling conditions.
Chemical stability	Stable under recommended conditions of storage and absence of incompatible materials / conditions to avoid. Heat sensitive; light sensitive.
Possibility of hazardous reaction	Risk of explosions of dust/air mixtures. Danger of violent reactions / explosions with strong oxidizing agents.
Conditions to avoid	Incompatible materials. Static discharges, ignition sources, light, heat. Do not overheat in order to avoid thermal decomposition.
Incompatible materials	Strong oxidizing agents, strong reducing agents, strong acids, strongly alkaline substances.
Hazardous decomposition products	No decomposition expected under normal storage conditions. Hazardous decomposition products in case of fire: Toxic gases/vapours, e.g. carbon monoxide (CO), carbon dioxide (CO ₂), sulphur dioxide, smoke. Thermal decomposition generates: Carbon oxides. Sulfur oxides.

11. Toxicological information

LD₅₀(oral)	LD50 Oral - Rat - >2000 mg/kg
LD₅₀(dermal)	LD50 Dermal - Rat - >2000mg/kg
LC₅₀(inhalation)	Not available
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Not classified.
Respiratory or skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
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	Not classified.
STOT-single exposure	Not classified.
STOT-repeated exposure	Not classified.
Aspiration hazard	Not classified.



12. Ecological information

Ecological information

Acute toxicity:	
Toxicity to Fish	LC50 (96h) 0.02mg/L
Toxicity to Invertebrates	EC50 (48h) >0.028mg/L
Toxicity to Algae	EC50 (72h) >0.047mg/L
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available
NOEC(Daphnia magna):	Not available
NOEC(Algae/aquatic plants):	0.005 mg/L (72h)
Persistence and degradability	Biodegradation in water: under test conditions no biodegradation observed.
Bioaccumulative potential	Low bioaccumulation potential.
Mobility in soil	Koc =27542 (20°C)
Results of PBT and vPvB assessment	The substance is not considered a PBT/vPvB.
Other adverse effects	Not available

13. Disposal considerations

Disposal considerations

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

14. Transport information

14.1 Label

Label	Not applicable
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14.2 Transport information

UN number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class	Not regulated
Packing group	Not regulated
Environmental hazards	No
Special precautions for user	See section 2.2



Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated
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15. Regulatory information

15.1 International chemical inventory

EINECS	Listed
TSCA	Listed
NDSL	Listed
IECSC	Listed
NZLOC	Listed
PICCS	Listed
KECI	Listed
AICS	Listed

16. Other information

16.1 Information on revision

Creation Date	2015/05/29
Revision Date	2022/01/21
Reason for revision	Modified according to the requirements of UN GHS (sixth revision).

16.2 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
- [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/>

16.3 Abbreviations and acronyms

CAS –Chemical Abstracts Service	TSCA- United States Toxic Substances Control Act Inventory
EINECS-European Inventory of Existing Commercial Chemical Substances	DSL- Canadian Domestic Substances List
PICCS- Philippines Inventory of Chemicals and Chemical Substances	NZIOC- New Zealand Inventory of Chemicals
IECSC- China Inventory of Existing Chemical Substance	KECI- Existing and Evaluated Chemical Substances
PC-STEL- Short term exposure limit	PC-TWA- Time Weighted Average
DNEL- Derived No Effect Level	IARC- International Agency for Research on Cancer

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RPE- Respiratory Protective Equipment

LC₅₀- Lethal Concentration 50%

NOEC- No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

BCF- Bioconcentration factor(BCF)

CMR- Carcinogens, mutagens or substances toxic to reproduction

PNEC-Predicted No Effect Concentration

LD₅₀- Lethal Dose 50%

EC₅₀- Effective Concentration 50%

POW -Partition coefficient Octanol: Water

vPvB- very Persistent, very Bioaccumulative

16.4 Disclaimer

This Safety Data Sheet (SDS) was prepared according to UNGHS (the 6th revised edition). The data included was derived from international authoritative data base 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 particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.