SAFETY DATA SHEET

1. IDENTIFICATION

Product name:	Diethyl oxalate
Product code:	O0120
Company:	Shandong Sincere Chemical Co.,Ltd.
Address:	No 21 industrial North Road,Licheng District,Jinan City,Shandong Province,250100 China
Responsible Department:	Sales Department
Telephone:	+86-187 6596 5726
e-mail:	lisali@sincerechemical.com
Emergency telephone:	+86 187 6596 5726
Revision number:	1

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS	
Flammable liquids	Category 4
HEALTH HAZARDS	
Acute toxicity (Oral)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
ENVIRONMENTAL HAZARDS	Not classified

Label elements

Pictograms or hazard symbols

Signal word	Warning
Hazard statements	Combustible liquid Harmful if swallowed Causes skin irritation Causes serious eye irritation

Precautionary statements

[Prevention]	Keep away from flames and hot surfaces. – No smoking. Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear protective gloves, eye protection.
[Response]	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. In case of fire: Use dry chemical, dry sand or foam to extinguish.
[Storage]	Store in a well-ventilated place. Keep cool.
[Disposal]	Dispose of contents and container in accordance with local, regional, national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Substance
Components:	Diethyl Oxalate [for Spectrophotometry]
Percent:	>99.0%(GC)
CAS RN:	95-92-1
Synonyms:	Oxalic Acid Diethyl Ester
Chemical Formula:	$C_6H_{10}O_4$

4. FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion:	Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
Unsuitable extinguishing media:	Solid streams of water
Precautions for firefighters:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Special protective equipment for firefighters:	When extinguishing fire, be sure to wear personal protective equipment

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Prevent product from entering drains.
Methods and materials for containment and cleaning up:	Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
Prevention of secondary hazards:	Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated.
Advice on safe handling:	Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage conditions:	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store away from incompatible materials such as oxidizing agents.
Packaging material:	Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Vapor respirator. Follow local and national regulations.

Eye protection: Safety glasses. A face-shield, if the situation requires.

Skin and body protection: Protective gloves. Protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Liquid
Form:	Clear
Colour:	Colorless
Odour:	Aromatic
pH:	No data available
Melting point/freezing point:	-41°C
Boiling point/range:	185°C
Flash point:	76°C
Flammability or explosive limits:	
Lower:	0.4%
Upper:	2.7%
Vapour pressure:	0.1kPa/47°C
Vapour density:	5.04
Relative density:	1.08
Solubility(ies):	
[Water]	Very slightly soluble (Decomposes)
[Other solvents]	
Miscible:	Ether, Alcohols, Acetone, Ethyl acetate, Many organic solvents
Log Pow:	0.56
Autoignition temperature:	410°C

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under proper conditions.
Possibility of hazardous reactions:	No special reactivity has been reported.
Conditions to avoid:	Open flame
Incompatible materials:	Oxidizing agents
Hazardous decomposition products:	Carbon dioxide, Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	orl-mus LD50:2 g/kg
Skin corrosion/irritation:	skn-gpg 500 mg/24H MLD
Serious eye damage/irritation:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	No data available
RTECS Number:	RO2800000

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	80 % (by BOD) , 100 % (by TOC) , 100 % (by HPLC)
Bioaccumulative potential(BCF):	No data available
Mobility in soil	
Log Pow:	0.56
Soil adsorption (Koc):	No data available
Henry's Law (PaM^3/mol):	0.2

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class:	6.1: Toxic substance.
UN-No:	2525
Proper shipping name:	Ethyl oxalate
Packing group:	III

15. REGULATORY INFORMATION

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

This product is included in the list of dangerous chemicals(2015)/Serial No.: 2579

16. OTHER INFORMATION

The reference company name of written contents

Company:	Shandong Sincere Chemical Co.,Ltd.
Address:	No 21 industrial North Road,Licheng District,Jinan City,Shandong Province,250100 China
Department:	Technical Information Department
Emergency telephone:	+86 187 6596 5726

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority.
The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.