Chemical Safety Data Sheet

SECTION 1 IDENTIFICATION

Product Name: Dimethyl chloroacetal CAS No. 97-97-2

Other Name:

CHLOROACETALDEHYDE DIMETHYL ACETAL;
1-CHLORO-2,2-DIMETHOXYETHANE;1,1-DIMETHOXY-2-CHLOROETHANE;
2-CHLORO-1,1-DIMETHOXYETHANE;CAMDA

Recommended use of the chemical and restrictions on use:

Pharmaceutical or pesticide intermediate

Supplier's details: Zibo Qifeng Chuanrun Chemical Co. LTD

Emergency phone number: 86 533 5200669 or 86 18653630725

Contacts: Mona Zhang **Mail ID:** monazhangchem@163.com

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammable Liquid Category 3,
Acute Toxicity (Oral) Category 4,
Acute Toxicity (Inhalation) Category 4,
Chronic Aquatic Hazard Category3.

GHS Label elements, including precautionary statements

Signal word: Warning

Hazard statement(s): Flammable liquid and vapor. Harmful if swallowed. Harmful if inhaled. Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/ vapors/spray. Wash …thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/eye protection/face protection.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. In case of fire: Use Foam, Dry chemical powder, Carbon dioxide, Water spray to extinguish.

Storage： Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Disposal: Dispose of contents/container to relevant regulations.
Other hazards which do not result in classification: /

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
dimethylchloroacetal	97-97-2	99.11%

SECTION 4 FIRST AID MEASURES

Description of necessary first aid measures
If inhaled: If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested.
In case of skin contact: Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed: /
Indication of immediate medical attention and special treatment needed： /

SECTION 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.
Special hazards arising from the chemical: Liquid and vapour are flammable. Moderate fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Moderate explosion hazard when exposed to heat or flame. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).
Special protective actions for fire-fighters: May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contacting with skin and eyes. Control personal contact with the substance, by using protective equipment.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up: Water spray or fog may be used to disperse /absorb vapour. Contain spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash

area and prevent runoff into drains.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of overexposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid generation of static electricity. DO NOT use plastic buckets. Earth all lines and equipment. Use spark-free tools when handling. Avoid contact with incompatible materials

Conditions for safe storage, including any incompatibilities: Store in original containers in approved flammable liquid storage area. Store away from incompatible materials in a cool, dry, well-ventilated area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources. Keep adsorbents for leaks and spills readily available. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this MSDS.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: /

Appropriate engineering controls: For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

Personal protective equipment

Eye/face protection: Safety glasses with side shields. Chemical goggles.

Skin protection: Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber. Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	colourless clear liquid
Odour	/
Odour Threshold	/
pH	/
Melting point/freezing point	-73°C
Initial boiling point and boiling range	128-130°C
Flash point	37°C
Evaporation rate	/
Flammability (solid, gas)	/
Upper/lower flammability or explosive limits	**Lower limits**: 2.3%
Vapour pressure	/
Vapour density	/
Relative density	1.094(water=1)
Water solubility	/

Partition coefficient: noctanol/water	/
Autoignition temperature	360°C
Decomposition temperature	/
Viscosity	/

SECTION 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: Product is considered stable.

Possibility of hazardous reactions: Hazardous polymerisation will not occur.

Conditions to avoid: Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials: Strong oxidizing agents, etc.

Hazardous decomposition products: carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute health effects

Inhalation: Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

Ingestion: Toxic effects may result from the accidental ingestion of the material.

Skin: This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Eyes: This material can cause eye irritation and damage in some persons.

Chronic health effects: There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

Numerical measures of toxicity(such as acute toxicity estimates): Oral (Rat) LD50:726 mg/kg.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability: Water/Soil: High.

Bioaccumulative potential: Low.

Mobility in soil: High.

Other adverse effects: /

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods: Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

UN number: 1989
UN proper shipping name: ALDEHYDES, N.O.S.
Transport hazard class(es): 3.
Packaging group: III
Environmental hazards: No.
Special precautions for user: /

SECTION 15 REGULATORY INFORMATION

Regulations：

chloroacetaldehyde dimethyl acetal (CAS: 97-97-2) is found on the following regulatory lists: "China Catalogue of Hazardous Chemicals", "China Dangerous Chemicals Names List (Chinese)", "China Inventory of Existing Chemical Substances".

This safety data sheet is in compliance with the following national standards: GB16483-2008，GB13690-2009， GB6944-2005，GB/T15098-2008，GB18218-2009，GB15258-2009，GB6944-2005，GB190-2009，GB191-2009，GB12268-2008，GA57-1993，GB/T 15098-2008，GBZ 2-2007as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation, United Nations Regulations on the Transport of Dangerous Goods (UN RTDG)

SECTION 16 OTHER INFORMATION

References	“Model Regulations on the Transport of Dangerous Goods”
	“The Globally Harmonized System of Classification and Labelling of Chemicals”
Form Date	07-Oct-2014

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.