



UNITED
INTERNATIONAL INC.

United International Co., Ltd.

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Material Safety Data Sheet

DELTA DODECALACTONE, NATURAL

United International Co., Ltd. asks to its customers receiving this material safety data sheet to study it carefully in order to know the dangers presented by the product and to inform its employees, agents, and sub-contractors. The end user is responsible for the handling and the storage of the product to refer to legislative, regular and administrative up to date texts, concerning the protection of the workers and the population and the environmental. This information is based on our current level of knowledge given by our own suppliers.

Date/revised: Aug. 05, 2011	Date issued: Dec. 04, 2008
Product: Delta dodecalactone, Natural	

1. Substance/preparation and company name

Company:

United International Co., Ltd.

18/F, Huaren International Building, 2A Shandong Road, Qingdao, China - 266071

2. Composition/information on ingredients

Chemical name: Delta dodecalactone, Natural

CAS No.: 713-95-1

FEMA No.: 2401

FDA No.: 172.515

CE No.: 624c

EINECS No.: 211-932-4

3. Physical and chemical properties

Appearance: Colorless to yellow liquid

Formula: $C_{12}H_{22}O_2$

Molecular weight: 198.34

Density: 0.9480-0.9540

Melting point: -12°C

Boiling point: 140-141 °C/1 mmHg(lit.)

Assay: 98.0% min.

4. Hazards identification

Main hazards: Irritating to eyes, respiratory system and skin.

5. First aid measures

Eyes: Bathe the eye with running water for 15 minutes. Consult a doctor.

Skin: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so.

Consult a doctor.

6. Fire fighting and measures

Flash point: 110°C

Explosion Limits: N/A

Exposure hazards: In combustion emits toxic fumes.

Protection of fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Suitable extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide. Dry chemical powder.

7. Accidental release measures

Personal precautions: Refer to section 9 of MSDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

8. Handling and storage

Handling: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. only use in fume hood

Storage: Store in cool, well ventilated area. Keep container tightly closed.

9. Exposure controls and personal protection

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Eyes: Safety glasses. Ensure eye bath is to hand.

Skin: Protective clothing.

Hand: Protective gloves.

10. Stability and reactivity

Chemical stability: Stable under normal conditions.

Conditions to avoid: Heat.

Incompatibilities with other materials: Strong oxidising agents. Strong acids.

Hazardous decomposition products: In combustion emits toxic fumes.

11. Toxicological information

LD₅₀ Oral, rat: > 5000 mg/kg

LD₅₀ Dermal, rabbit: > 5000 mg/kg

12. Ecological information

N/A

13. Disposal considerations

Dispose of as special waste in compliance with local and national regulations. Observe all federal, state and local environmental regulations.

14. Transport information

Emergency TEL: +86-532-86069596; 83891505~9

15. Regulatory information

N/A

16. Other information

Shelf life: 10 months minimum in sealed containers protected from light and air

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained here.