



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

<b>PRODUCT CODE</b>	A0146
<b>PRODUCT NAME</b>	TRANS- 2-DODECENAL
<b>SUPPLIER</b>	Shanghai M & U International Trade Co., Ltd. Rm 1717, No 598 North NuJiang Road 200333 Shanghai, China +86-21-32515501 32515502 sales@mu-intel.com

**FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)**

### 2. HAZARD IDENTIFICATION:

#### HMIS HAZARD CLASSIFICATIONS

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PROTECTION	B

#### LABEL PRECAUTIONARY STATEMENTS

#### GHS CLASSIFICATION AND LABELLING

The following determinations per the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) have been made:

**GHS SIGNAL WORD** Warning

#### GHS SYMBOLS

GHS07 Exclamation mark

#### GHS LABELING/HAZARD STATEMENTS

H315 Causes skin irritation

H319 Causes serious eye irritation

#### GHS LABELING/PRECAUTIONARY STATEMENTS

P264	Wash hands thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 IF ON SKIN	Wash with plenty of soap and water
P305+P351+P338 IF IN EYES	Rinse cautiously with water for several minutes, remove contact lenses, if present and easy to do. Continue rinsing
P332+P313 If skin irritation occurs	Get medical advice/attention
P337+P313 If eye irritation persists	Get medical advice/attention

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS:

SYNONYM	e-2-Dodecenal		
Formula	C12H24O		
Molecular Weight	184.32 g/mol		
CAS-No	EC-No	Index-No	Concentration
20407-84-5	244-786-5		

#### 4. FIRST-AID GUIDE:

##### **INHALATION EXPOSURE**

Remove to fresh air. Give oxygen and call a physician

##### **EYE CONTACT**

Flush with water for 15 min. Seek medical help if necessary

##### **SKIN CONTACT**

Wash area well with water. Seek medical help if necessary

##### **INGESTION**

Administer water and call a physician or poison control center immediately. Do not induce vomiting

#### 5. FIRE-FIGHTING GUIDE:

##### **EXTINGUISHING MEDIA**

CO2, FOAM, DRY CHEMICAL

##### **SPECIAL FIRE FIGHTING PROCEDURES**

Use standard firefighting procedures

##### **UNUSUAL FIRE AND EXPLOSION HAZARDS**

No data available

#### 6. ACCIDENTAL RELEASE GUIDE:

##### **STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Standard absorbents can be used. Wet used absorbent with water; store in air-tight container

##### **WASTE DISPOSAL METHOD**

Incineration or sanitary landfill in accordance with local, state, and federal regulations

#### 7. HANDLING AND STORAGE:

##### **HANDLING**

Observe all warnings and precautions listed for the product. Use in accordance with good manufacturing and industrial hygiene practices. Use product in a properly ventilated work area. Do not eat, drink or smoke while handling product

##### **STORAGE**

##### **Packaging**

Glass, Aluminum or Phenolic Lined Steel Store tightly sealed under inert gas in a cool, well-ventilated area

##### **FIRE PROTECTION**

Keep away from heat, sparks, and open flame

## 8. EXPOSURE AND PERSONAL PROTECTION:

### VENTILATION

Local exhaust preferred. General ventilation required.

### RESPIRATORY

Usually not required, avoid inhaling concentrated vapors.

### SKIN

Avoid skin contact. Use chemical resistant gloves.

### EYES

Splash-proof safety glasses or goggles

### OTHER PROTECTIVE EQUIPMENT

Safety shower, eye wash

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

### APPEARANCE

colorless clear liquid

### ODOR DESCRIPTION

mandarin orange-like odor

### BOILING POINT

257.92 C (EPI 4.0)

### VAPOR PRESSURE

0.0111 mmHg (20C, EPI 4.0)

### VAPOR DENSITY (Air = 1)

> 1

### SPECIFIC GRAVITY @ 25C (water = 1)

0.8390:0.8490

### SOLUBILITY IN WATER

Insoluble in water; soluble in alcohol

### FLASH POINT (CC)

230 F 110 C

### LOGP

4.712

## 10. STABILITY AND REACTIVITY:

### INCOMPATIBILITIES

### CONDITIONS TO AVOID

Presents no special reactivity hazard

### MATERIALS TO AVOID

Strong oxidizing agents

### HAZARDOUS COMBUSTION PRODUCTS

CO, CO<sub>2</sub>, water

## 11. TOXICOLOGICAL INFORMATION:

### ACUTE EFFECTS

Most likely route of entry is through the skin

Full strength may be irritating to skin and eyes

### IRRITATION DATA

1% in petrolatum produced no irritation or sensitization in humans.

Eye Rabbit

0.1 ml of 0.125% test mat'l in alcohol SDA 39C into the right eye of 3 rabbits produced a mild conjunctival irritation which cleared on the 7th

Skin Rabbit                      day of observation (data from 2-Decenal)  
5 g/kg irritant effects; ulcerated and crusted treated skin at necropsy

**TOXICITY DATA**

Ames                                      Under conditions of the study, the test mat'l was considered to be non-mutagenic in *S. typhimurium* strains TA1535, TA1537, TA98, TA100 & TA102 w/ & w/o metabolic activation up to 5000 ug/plate

Genotoxicity Oral (mouse)              Under the conditions of the study, the test mat'l is considered to be non-mutagenic in this micronucleus assay; vehicle: corn oil; 500, 1000 & 2000 mg/kg doses

LD50 Dermal (rabbit)                      5 g/kg

LD50 Oral (rat)                              > 5 g/kg

**THRESHOLD LIMIT VALUE (TLV)**

Not established

**OSHA PERMISSIBLE EXPOSURE LIMIT (PEL)**

Not established

**LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA**

No data available

**12. ECOLOGICAL INFORMATION:**

**GENERAL**

Prevent contamination of soil, ground- and surface water

**ECOTOXIC EFFECTS**

Biodegradation test (OECD 302C): 30 mg/l inherently biodegradable. biodegradation started on 1st day and exceeded 70% after 9 days; 83% in 28 days. Result for mixed isomer undecenal

**13. DISPOSAL RECOMMENDATIONS:**

**WASTE DISPOSAL METHOD**

Incineration or sanitary landfill in accordance with local, state, and federal regulations

**14. TRANSPORTATION INFORMATION:**

**DOT (US)**

UN number: 1760 Class: 8 Packing group: III

Proper shipping name: Corrosive liquids, n.o.s. ((E)-Dodec-2-en-1-al)

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN number: 1760 Class: 8 Packing group: III EMS-No: F-A, S-B

Proper shipping name: CORROSIVE LIQUID, N.O.S. ((E)-Dodec-2-en-1-al)

Marine pollutant: No

**IATA**

UN number: 1760 Class: 8 Packing group: III  
Proper shipping name: Corrosive liquid, n.o.s. ((E)-Dodec-2-en-1-al)

## **15. REGULATORY INFORMATION:**

### **REVIEWS, STANDARDS, AND REGULATIONS**

**This chemical is listed on the following inventories**

TSCA AICS CHINA DSL EINECS(225-402-5) PICCS

**LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA**

No data available

## **16. OTHER INFORMATION:**

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