



# SAFETY DATA SHEET

Revision Date 10-Feb-2011

Revision Number 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Description:** 4-Ethyl-1,3-dioxolan-2-one  
**Cat No.** 409890000; 409890250; 409890100  
**Synonyms** Butylene carbonate

### Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

### Details of the supplier of the safety data sheet

#### **Company**

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

**E-mail address** [bege1.sdsdesk@thermofisher.com](mailto:bege1.sdsdesk@thermofisher.com)

#### **Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01  
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
CHEMTREC Phone Number, Europe: 001-703-527-3887

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**REGULATION (EC) No 1272/2008**

Not hazardous

### Classification according to EU Directives 67/548/EEC or 1999/45/EC

*For the full text of the R phrases mentioned in this Section, see Section 16*

**R -phrase(s)** none

### Label Elements

**Signal Word** None

**Hazard Statements**

### Other Hazards

No information available.

**4-Ethyl-1,3-dioxolan-2-one**
**Revision Date 10-Feb-2011**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
1,3-Dioxolan-2-one, 4-ethyl- 4437-85-8		99	4437-85-8	-	-	-

For the full text of the R phrases mentioned in this Section, see Section 16

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Obtain medical attention
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Obtain medical attention
<b>Ingestion</b>	Clean mouth with water Get medical attention
<b>Inhalation</b>	Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration
<b>Notes to Physician</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media**
**Suitable Extinguishing Media**

Water spray Carbon dioxide (CO<sub>2</sub>) Dry chemical Use extinguishing measures that are appropriate to local circumstances and the surrounding environment chemical foam

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

4-Ethyl-1,3-dioxolan-2-one

Revision Date 10-Feb-2011

**6. ACCIDENTAL RELEASE MEASURES**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal.

**7. HANDLING AND STORAGE**

**Precautions for Safe Handling**

Avoid contact with skin and eyes Do not breathe dust Do not breathe vapors or spray mist

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place Keep container tightly closed

**Specific End Uses**

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**Exposure limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls**

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas Ventilation systems

**Personal protective equipment**

**Eye Protection**

Goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**

No information available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State**

Liquid

**Appearance**

Clear

**odor**

odorless

**pH**

6-8 1% aq.sol.

**4-Ethyl-1,3-dioxolan-2-one**
**Revision Date 10-Feb-2011**
**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Boiling Point/Range</b>	251°C / 483.8°F @ 760 mmHg
<b>Melting Point/Range</b>	-45°C / -49°F
<b>Flash Point</b>	135°C / 275°F
<b>Autoignition Temperature</b>	No information available.
<b>Specific Gravity</b>	1.141
<b>Molecular Formula</b>	C5 H8 O3
<b>Molecular Weight</b>	116.12

**10. STABILITY AND REACTIVITY**
Reactivity
Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions
**Hazardous Polymerization**

No information available.

**Hazardous Reactions .**

No information available.

Conditions to Avoid

Incompatible products.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

 Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**11. TOXICOLOGICAL INFORMATION**
Information on Toxicological Effects
Acute Toxicity
**Product Information**

No acute toxicity information is available for this product

Component Information
**Component**

1,3-Dioxolan-2-one, 4-ethyl-

	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
	5 g/kg ( Rat )	2 g/kg ( Rabbit )	

Chronic Toxicity
**Carcinogenicity**

There are no known carcinogenic chemicals in this product

Sensitization
**Mutagenic Effects**

No information available.

No information available

4-Ethyl-1,3-dioxolan-2-one

Revision Date 10-Feb-2011

<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.
<b>Target Organs</b>	No information available.
<b>Other Adverse Effects</b>	The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information
<b>Endocrine Disruptor Information</b>	None known

## 12. ECOLOGICAL INFORMATION

### Toxicity

#### **Ecotoxicity effects**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

### Persistence and degradability

No information available

### Bioaccumulative potential

No information available.

### Mobility in soil

No information available.

### Results of PBT and vPvB assessment

#### **Other adverse effects**

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### **Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

#### **Contaminated Packaging**

Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

### IMDG/IMO

Not regulated

### ADR

Not regulated

### IATA

Not regulated

4-Ethyl-1,3-dioxolan-2-one

Revision Date 10-Feb-2011

**15. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
1,3-Dioxolan-2-one, 4-ethyl-	-	-		P	-	X	-	X	X	-	-

**Legend**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- EINECS/ELINCS** - European Inventory Lists
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- CHINA** - China Inventory of Existing Chemical Substances
- AICS** - Inventory of Chemical Substances
- KECL** - Existing and Evaluated Chemical Substances

**Chemical Safety Assessment**

**16. OTHER INFORMATION**

**Text of R phrases mentioned in Section 2-3**

No information available.

Revision Date 10-Feb-2011  
 Revision Summary Not applicable  
 This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Safety Data Sheet