

Revision Date 09-Nov-2010

Revision Number 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Description:**

(S)-(-)-3-Butyn-2-ol

**Cat No.**

362410000; 362410010; 362410050

**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**

begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

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

Acute oral toxicity	Category 2
Acute dermal toxicity	Category 3
Skin Corrosion / irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Specific target organ systemic toxicity (single exposure)	Category 3
Flammable liquids.	Category 2

**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*

**Symbol(s)**

F - Highly flammable

T+ - Very toxic

**R -phrase(s)**

R11 - Highly flammable

R24 - Toxic in contact with skin

R28 - Very toxic if swallowed

**Risk Combination Phrases**

R36/37/38 - Irritating to eyes, respiratory system and skin

**2. HAZARDS IDENTIFICATION****Label Elements****Signal Word****Danger****Hazard Statements**

H319 - Causes serious eye irritation  
H311 - Toxic in contact with skin  
H315 - Causes skin irritation  
H335 - May cause respiratory irritation  
H300 - Fatal if swallowed  
H225 - Highly flammable liquid and vapor

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P240 - Ground/Bond container and receiving equipment

**Other Hazards**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

(S)-(-)-3-Butyn-2-ol		95	2914-69-4	F; R11 T; R24 T+; R28 Xi; R36/37/38;	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 2 (H300) Acute Tox. 3 (H311)	
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For the full text of the R phrases mentioned in this Section, see Section 16

**4. FIRST AID MEASURES****Description of first aid measures****Eye Contact**

Immediate medical attention is required Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

**Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Immediate medical attention is required

**Ingestion**

Call a physician immediately Clean mouth with water

**Inhalation**

Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Immediate medical attention is required

**Notes to Physician**

Treat symptomatically

**5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Water spray Carbon dioxide (CO<sub>2</sub>) Dry chemical chemical foam

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

No information available.

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

Flammable

**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**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust) Keep in suitable and closed containers for disposal Remove all sources of ignition Use spark-proof tools and explosion-proof equipment

**7. HANDLING AND STORAGE****Precautions for Safe Handling**

Do not breathe dust Do not breathe vapors or spray mist Do not get in eyes, on skin, or on clothing Use only in area provided with appropriate exhaust ventilation Use explosion-proof equipment Use only non-sparking tools

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

Keep in a dry, cool and well-ventilated place Keep container tightly closed Keep away from heat and sources of ignition Keep locked-up

**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 Ensure that eyewash stations and safety showers are close to the workstation location

**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**

Light yellow

**pH**

No information available.

**Boiling Point/Range**

108 - 111°C / 226.4 - 231.8°F

**Melting Point/Range**

No information available.

**Flash Point**

10°C / 50°F

**Specific Gravity**

0.894

**Molecular Formula**

C<sub>4</sub> H<sub>6</sub> O

**Molecular Weight**

70.09

**10. STABILITY AND REACTIVITY****Reactivity**

## 10. STABILITY AND REACTIVITY

### Chemical Stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

#### Hazardous Polymerization

No information available.

#### Hazardous Reactions .

No information available.

### Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition, 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

#### Chronic Toxicity

##### Carcinogenicity

There are no known carcinogenic chemicals in this product

##### Sensitization

No information available.

##### Mutagenic Effects

No information available

##### Reproductive Effects

No information available.

##### Developmental Effects

No information available.

##### Target Organs

No information available.

##### Other Adverse Effects

The toxicological properties have not been fully investigated.

##### Endocrine Disruptor Information

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

**12. ECOLOGICAL INFORMATION****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**

UN-No	1986
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II

**ADR**

UN-No	1986
Hazard Class	3
Subsidiary Class	6.1
Packing Group	II

**IATA**

UN-No	1986
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories****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**

R11 - Highly flammable

R24 - Toxic in contact with skin

R28 - Very toxic if swallowed

R36/37/38 - Irritating to eyes, respiratory system and skin

Revision Date 09-Nov-2010

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