SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier
Product Description: 3-Butyn-1-ol
Cat No. 157330000; 157330050; 157330250; 157331000
Synonyms None.

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 Pharmaceuticaal 3a
2440 Geel, Belgium
E-mail address begel.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

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
REGULATION (EC) No 1272/2008
Acute oral toxicity Category 4
Acute dermal toxicity Category 4
Skin Corrosion/irritation Category 2
Serious Eye Damage/Eye Irritation Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Flammable liquids. Category 3

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16
Symbol(s) Xn - Harmful
R-phrase(s) R10 - Flammable
Risk Combination Phrases R21/22 - Harmful in contact with skin and if swallowed
R36/37/38 - Irritating to eyes, respiratory system and skin
SECTION 2. HAZARDS IDENTIFICATION

Label Elements

Signal Word Warning

Hazard Statements
H302 - Harmful if swallowed
H315 - Causes skin irritation
H312 - Harmful in contact with skin
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H226 - Flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
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

Other Hazards
No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

|-----------|--------|----------|--------|--------------------------|-----------------------------------------------|-----------|

ACR15733
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>EEC No.</th>
<th>CAS No.</th>
<th>R-phrases</th>
<th>H-Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>But-3-yn-1-ol</td>
<td>213-161-9</td>
<td>927-74-2</td>
<td>R10 Xn; R21/22 Xi; R36/37/38;</td>
<td>STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302) Acute Tox. 4 (H312)</td>
</tr>
</tbody>
</table>

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

**Description of first aid measures**

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

**Ingestion**
Clean mouth with water. Get medical attention.

**Inhalation**
Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

**Notes to Physician**
Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**
Water spray. Carbon dioxide (CO₂). 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. Vapors may travel to source of ignition and flash back.

**Advice for fire-fighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
SECTION 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, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Do not let this chemical enter the environment.

SECTION 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. Do not ingest. 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. Flammables area.

Specific End Uses

SECTION 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.

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological 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

Use explosion-proof electrical/ventilating/lighting/equipment 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State
- Liquid

Appearance
- Light yellow

odor
- odorless

pH
- No information available.

Vapor Pressure
- No information available.

Vapor Density
- 2.4

Boiling Point/Range
- 128.8°C / 263.8°F @ 760 mmHg

Melting Point/Range
- -63.6°C / -82.5°F

Flash Point
- 36°C / 96.8°F

Autoignition Temperature
- No information available.

Water Solubility
- miscible

Specific Gravity
- 0.926

Molecular Formula
- C4 H6 O

Molecular Weight
- 70.09

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability
- Stable under normal conditions

Possibility of Hazardous Reactions
- Hazardous polymerization does not occur.
- No information available.

Conditions to Avoid
- Keep away from open flames, hot surfaces and sources of ignition, Incompatible products.

Incompatible Materials
- Acids, Strong oxidizing agents, Acid anhydrides, Metals, copper.

Hazardous Decomposition Products
- Carbon monoxide (CO). Carbon dioxide (CO2).
SECTION 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. See actual entry in RTECS for complete information

Endocrine Disruptor Information
None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects
Do not empty into drains

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>But-3-yn-1-ol</td>
<td></td>
<td>33.6-38.8 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 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 to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

<table>
<thead>
<tr>
<th>UN-No</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.</td>
</tr>
</tbody>
</table>

ADR

<table>
<thead>
<tr>
<th>UN-No</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.</td>
</tr>
</tbody>
</table>

IATA

<table>
<thead>
<tr>
<th>UN-No</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
<td>III</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.*</td>
</tr>
</tbody>
</table>

SECTION 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 of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCNS** - 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

#### SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

- **R10** - Flammable
- **R21/22** - Harmful in contact with skin and if swallowed
- **R36/37/38** - Irritating to eyes, respiratory system and skin

**Revision Date** 23-Mar-2012

**Revision Summary**

Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this Safety Data Sheet 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