SAFETY DATA SHEET
CONTROL CELLS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name
CONTROL CELLS

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier
Web: www.bio-rad-antibodies.com
Bio-Rad
Endeavour House
Langford Business Park
Kidlington
Oxford
OX5 1GE
Tel. +44 (0)1865 852700
antibody_safetydatasheets@bio-rad.com

Contact person
Technical Services Manager

1.4. Emergency telephone number

Emergency telephone
Tel. +44 (0) 1865 852700 (9.00 a.m. - 5.00 p.m. Mon-Fri)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification
Physical hazards
Flam. Liq. 2 - H225
Health hazards
Not Classified
Environmental hazards
Not Classified

2.2. Label elements

Pictogram

Signal word
Danger

Hazard statements
H225 Highly flammable liquid and vapour.
CONTROL CELLS

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>ETHANOL</th>
<th>60-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number:</td>
<td>64-17-5</td>
</tr>
<tr>
<td>EC number:</td>
<td>200-578-6</td>
</tr>
<tr>
<td>Classification</td>
<td>Flam. Liq. 2 - H225</td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments

No other ingredients, including those with occupational exposure limits, present above the level of disclosure.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Effects may be delayed. Keep affected person under observation. Keep affected person away from heat, sparks and flames.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Get medical attention.

Ingestion

Remove affected person from source of contamination. Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.

Skin contact

Remove affected person from source of contamination. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Get medical attention if any discomfort continues.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Flammable liquid and vapour.
CONTROL CELLS

5.3. Advice for firefighters

Protective actions during firefighting
Ventilate closed spaces before entering them. Move containers from fire area if it can be done without risk. Do not scatter spilled material with more water than needed to fight the fire. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up
Methods for cleaning up
Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Stop leak if safe to do so. Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions
Restricted to professional users. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions
Do not store near heat sources or expose to high temperatures. Keep away from heat, sparks and open flame.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters
Occupational exposure limits
ETHANOL
Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³
Short-term exposure limit (15-minute): WEL
WEL = Workplace Exposure Limit

8.2. Exposure controls
Protective equipment
Eye/face protection
Wear chemical splash goggles.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection
Wear protective clothing.

Hygiene measures
Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Provide eyewash station.
CONTROL CELLS

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid. Suspension.</td>
</tr>
<tr>
<td>Colour</td>
<td>Varying.</td>
</tr>
<tr>
<td>Odour</td>
<td>Alcoholic.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation factor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other flammability</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Bulk density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive under the influence of a flame</td>
<td>Not considered to be explosive.</td>
</tr>
</tbody>
</table>

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity: No information available

10.2. Chemical stability

Stability: Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid
CONTROL CELLS

Conditions to avoid
Keep away from heat, sparks and open flame. Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

SECTION 12: Ecological Information

12.1. Toxicity

12.2. Persistence and degradability

12.3. Bioaccumulative potential

Partition coefficient
Not available.

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General
As supplied, this product is consigned under the Excepted Quantities provisions.

Road transport notes
As supplied, this product is consigned under the Excepted Quantities provisions.

Rail transport notes
As supplied, this product is consigned under the Excepted Quantities provisions.

Sea transport notes
As supplied, this product is consigned under the Excepted Quantities provisions.

Air transport notes
As supplied, this product is consigned under the Excepted Quantities provisions.

14.1. UN number

UN No. (ADR/RID) 1170
UN No. (IMDG) 1170
UN No. (ICAO) 1170
UN No. (ADN) 1170

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Proper shipping name (IMDG) ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Proper shipping name (ICAO) ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Proper shipping name (ADN) ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es)

ADR/RID class 3
CONTROL CELLS

ADR/RID classification code  F1
ADR/RID label  3
IMDG class  3
ICAO class/division  3
ADN class  3

Transport labels

14.4. Packing group
ADR/RID packing group  II
IMDG packing group  II
ADN packing group  II
ICAO packing group  II

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
EmS  F-E, S-D
ADR transport category  2
Emergency Action Code  •2YE
Hazard Identification Number (ADR/RID)  33
Tunnel restriction code  (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.2. Chemical safety assessment

SECTION 16: Other information

General information  Only trained personnel should use this material.
Revision date  05/07/2016
Revision  2
Supersedes date  11/05/2016
SDS number  20344
Hazard statements in full  H225 Highly flammable liquid and vapour.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user’s responsibility to satisfy himself as to the suitability of such information for his own particular use.