Safety data sheet  
According to regulation (EC) No. 1907/2006

Rev.date: 25.07.2019 replaces version from 08.03.2012

1. Identification of the substance/preparation and the company/undertaking
1.1. Product identifier
Catalogue no.: IC1600ko
Product name: Vitamin AE controls (CTRL)

1.2. Relevant identified uses of the substance or mixture and uses advised against
Materials for use in the appropriate testkit.

1.3. Details of the supplier of the safety data sheet
Company: ImmuChrom GmbH
Lise-Meitner-Str. 13
64646 Heppenheim
Tel.: +49 6252 910084
Fax: +49 6252 910070
Email: info@immuchrom.de
www.immuchrom.de

1.4. Emergency telephone number
Available during the normal working hours +49 6252 910084

2. Hazards identification
2.1. Classification of the substance or mixture (Regulation (EC) No 1272/2008)
None

2.2. Label elements (Regulation (EC) No 1272/2008)
Hazard pictograms (reduced labeling <125 ml)
Signal word
Hazard statements
Precautionary statements
P280 Wear protective gloves, protective clothing, eye 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 rising.

2.3. Other dangers
Controls contains human blood. It was tested and found negative for HBsAg, anti-HIV-1/2, and anti-HCV. No test can guarantee the absence of HBsAg or HIV, and so all reagents of human origin in this kit must be handled as though capable of transmitting infection. The normal precautions for laboratory working should be observed.

3. Composition/information on ingredients
The mixture contains human plasma and vitamin A and E.
4. First aid measures

4.1. Description of first aid measures
General advice: First aider needs to protect himself.

After inhalation:

After skin contact: Wash with plenty of water, remove contaminated clothing, in case of discomfort consult a physician.

After eye contact: Rinse out with plenty of water. Immediately contact an ophthalmologist.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately contact a physician.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of immediate medical attention and special treatment needed
No information available

5. Fire fighting measures

5.1. Extinguishing media
Suitable extinguishing media: Water, foam, carbon dioxide (CO₂)

Unsuitable extinguishing media: none

5.2. Special hazards arising from the substance or the mixture
Not combustible
Ambient fire may cause hazardous gases

5.3. Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation, observe emergency procedures, call an expert.

6.2. Environmental precaution
Do not empty into drains

6.3. Methods and materials for containment and cleaning up
Cover drains. Collect, bind and pump off spills.

6.4. Reference to other sections
For waste treatment refer to section 13

7. Handling and storage

7.1 Precaution for safe handling
Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards.

7.2. Conditions for safe storage, including any incompatibilities
Keep tightly closed.
Store at +2 - +8 °C.
7.3. Specific end uses
Apart from the use mentioned in section 1.2. no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Control parameters
The compositions contains no substances with exposure control.

8.2. Exposure controls
Technical measures to reduce safety risk for the operator should be given priority over the use of personal protective equipment.

Individual protection measures

Hygiene measures: Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards. Do not eat, drink, smoke or apply makeup in areas where specimens or kit reagents are handled.

Eye protection: Wear safety glasses.

Hand protection: wear safety gloves
The gloves must comply with the specifications of the directive EC 89/686/EEC and the related standard EN374.

Respiratory protection: Not necessary

Environmental exposure control: Do not empty into drains

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>lyophilised</td>
</tr>
<tr>
<td>Colour</td>
<td>yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>bloodsmell after reconstitution</td>
</tr>
<tr>
<td>pH-Value</td>
<td>approx. 7</td>
</tr>
<tr>
<td>Melting point</td>
<td>no information available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>no information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>no information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no information available</td>
</tr>
<tr>
<td>Higher explosion limit</td>
<td>no information available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no information available</td>
</tr>
<tr>
<td>Relative density</td>
<td>no information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>complete</td>
</tr>
<tr>
<td>Partition coefficient: n-oktanol/water</td>
<td>no information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>no information available</td>
</tr>
<tr>
<td>Other data</td>
<td>none</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

10.1. Reactivity
No information available

10.2. Chemical stability
The mixture is stable at 2-8 °C up to the expiry date given on the label

10.3. Possibility of hazardous reactions
no information available

Violent reactions possible with:
No degradation when using according to the specification

10.4. Conditions to avoid
Heat, direct sunlight

10.5. Incompatible materials
Strong bases, strong acids, powdered metals, amines, phosphohalogenides, alcohols, organic materials, strong reduction agents.

10.6. Hazardous decomposition products
No information available

11. Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td>none</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye irritation</td>
<td>slight irritation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotoxicity</td>
<td>Ames test negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Based on available data the classification criteria are not met</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11.2. Further information
Quantative data on toxicity of the mixture are not available

12. Ecological information

12.1. Toxicity
No information available

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT- and vPvB-assessment
A PBT- and vPvB-assessment is not available, as a chemical safety assessment is not required/not conducted.
12.6. Other adverse effects
No other effects known
Danger for drinking water
Do not allow to run into surface water, wastewater or soil.

13. Disposal consideration

Leftovers should be disposed concerning to the regulation 2008/98/EC and/or national and regional regulations.

Uncontaminated packing can be treated as normal waste or conduct into the recycling process.

14. Transport information

Not supposed to the transport regulation

ADR/RID
IATA
IMDG

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulation
This safety data sheet complies with the requirements of the regulation (EC) No. 1907/2006

15.2. Chemical safety assessment
For this product a chemical safety assessment was not carried out

16. Other information

Text of H-codes mentioned in section 2
Precautionary statements
P280 Wear protective gloves, protective clothing, eye 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 rising.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.
Safety data sheet
According to regulation (EC) No. 1907/2006

Rev.date: 25.07.2019 replaces version from 14.08.2012

1. Identification of the substance/preparation and the company/undertaking

1.1. Product identifier
Catalogue no.: IC1600vl
Product name: Vitamin AE dilution solution (DIL)

1.2. Relevant identified uses of the substance or mixture and uses advised against Materials for use in the appropriate testkit.

1.3. Details of the supplier of the safety data sheet
Company: ImmuChrom GmbH
Lise-Meitner-Str. 13
64646 Heppenheim
Tel.: +49 6252 910084
Fax: +49 6252 910070
Email: info@immuchrom.de
www.immuchrom.de

1.4. Emergency telephone number
Available during the normal working hours +49 6252 910084

2. Hazards identification

2.1. Classification of the substance or mixture (Regulation (EC) No 1272/2008)
None

2.2. Label elements (Regulation (EC) No 1272/2008)
Hazard pictograms (reduced labeling <125 ml)

Signal word

Hazard statements

Precautionary statements
P280 Wear protective gloves, protective clothing, eye 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 rising.

2.3. Other dangers
No information available

3. Composition/information on ingredients

The mixture contains the substances listed below and substances without dangerous potential.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EINECS</th>
<th>Description</th>
<th>Percent</th>
<th>H-codes</th>
</tr>
</thead>
</table>
4. First aid measures

4.1. Description of first aid measures
General advice: First aider needs to protect himself.

**After inhalation:**

**After skin contact:** Wash with plenty of water, remove contaminated clothing.

**After eye contact:** Rinse out with plenty of water.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of immediate medical attention and special treatment needed
No information available

5. Fire fighting measures

5.1. Extinguishing media
Suitable extinguishing media: Water, foam, carbon dioxide (CO₂)

Unsuitable extinguishing media: none

5.2. Special hazards arising from the substance or the mixture
Not combustible
Ambient fire may cause hazardous gases

5.3. Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation, observe emergency procedures, call an expert.

6.2. Environmental precaution
none

6.3. Methods and materials for containment and cleaning up
none

6.4. Reference to other sections
For waste treatment refer to section 13

7. Handling and storage

7.1 Precaution for safe handling
Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards.

7.2. Conditions for safe storage, including any incompatibilities
Keep tightly closed.
Store at +2 - +8 °C.

7.3. Specific end uses
Apart from the use mentioned in section 1.2. no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Control parameters
The compositions contains no substances with exposure control.

8.2. Exposure controls
Technical measures to reduce safety risk for the operator should be given priority over the use of personal protective equipment.

Individual protection measures

Hygiene measures: Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards. Do not eat, drink, smoke or apply makeup in areas where specimens or kit reagents are handled.

Eye protection: Wear safety glasses.

Hand protection: wear safety gloves
The gloves must comply with the specifications of the directive EC 89/686/EEC and the related standard EN374.

Respiratory protection: Not necessary

Environmental exposure control: Do not empty into drains

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>none</td>
</tr>
<tr>
<td>pH-Value</td>
<td>no information available</td>
</tr>
<tr>
<td>Melting point</td>
<td>no information available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>no information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>no information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no information available</td>
</tr>
<tr>
<td>Higher explosion limit</td>
<td>no information available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no information available</td>
</tr>
<tr>
<td>Relative density</td>
<td>no information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>complete</td>
</tr>
<tr>
<td>Partition coefficient: n-oktanol/water</td>
<td>no information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>no information available</td>
</tr>
<tr>
<td>Other data</td>
<td>none</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

10.1. Reactivity
No information available

10.2. Chemical stability
The mixture is stable at 2-8 °C up to the expiry date given on the label
10.3. Possibility of hazardous reactions
No information available

Violent reactions possible with:
No degradation when using according to the specification

10.4. Conditions to avoid
Heat, direct sunlight

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
No information available

11. Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td>none</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye irritation</td>
<td>none</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genotoxicity</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Based on available data the classification criteria are not met</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11.2. Further information
Quantative data on toxicity of the mixture are not available

12. Ecological information

12.1. Toxicity
No information available

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT- and vPvB-assessment
A PBT- and vPvB-assessment is not available, as a chemical safety assessment is not required/not conducted.

12.6. Other adverse effects
No other effects known
Danger for drinking water
Do not allow to run into surface water, wastewater or soil.

13. Disposal consideration

Leftovers should be disposed concerning to the regulation 2008/98/EC and/or national and regional regulations.

Uncontaminated packing can be treated as normal waste or conduct into the recycling process.

14. Transport information

Not supposed to the transport regulation

ADR/RID
IATA
IMDG

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulation
This safety data sheet complies with the requirements of the regulation (EC) No. 1907/2006

15.2. Chemical safety assessment
For this product a chemical safety assessment was not carried out

16. Other information

Text of H-codes mentioned in section 2

Precautionary statements
P280 Wear protective gloves, protective clothing, eye 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 rising.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.
1. Identification of the substance/preparation and the company/undertaking
1.1. Product identifier
Catalogue no.: IC1600lm
Product name: Vitamin AE mobile phase (ELU)

1.2. Relevant identified uses of the substance or mixture and uses advised against
materials for use in the appropriate testkit.

1.3. Details of the supplier of the safety data sheet
Company: ImmuChrom GmbH
Lise-Meitner-Str. 13
64646 Heppenheim
Tel.: +49 6252 910084
Fax: +49 6252 910070
Email: info@immuchrom.de
www.immuchrom.de

1.4. Emergency telephone number
Available during the normal working hours +49 6252 910084

2. Hazards identification
2.1. Classification of the substance or mixture (Regulation (EC) No 1272/2008
Flammable liquids (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)

2.2. Label elements (Regulation (EC) No 1272/2008
Hazard pictograms

Signal word
Danger

Hazard statements
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
3. Composition/information on ingredients

The mixture contains the substances listed below and substances without dangerous potential.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EINECS</th>
<th>Description</th>
<th>Percent</th>
<th>H-codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>200-661-7</td>
<td>Isopropanol</td>
<td>70</td>
<td>225, 319, 336</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures
General advice: First aider needs to protect himself.

After inhalation: Fresh air, in case of discomfort consult a physician.

After skin contact: Wash with plenty of water, remove contaminated clothing, in case of discomfort consult a physician.

After eye contact: Rinse out with plenty of water. Immediately contact an ophthalmologist.

If swallowed: Give water to drink (two glasses at most). Immediately consult a physician.

4.2. Most important symptoms and effects, both acute and delayed
Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.

4.3. Indication of immediate medical attention and special treatment needed
No information available

5. Fire fighting measures

5.1. Extinguishing media
Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2. Special hazards arising from the substance or the mixture
Carbon oxides

5.3. Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation, observe emergency procedures, call an expert.

6.2. Environmental precaution
Do not empty into drains

6.3. Methods and materials for containment and cleaning up
Cover drains. Collect, bind and pump off spills.

6.4. Reference to other sections
For waste treatment refer to section 13
7. Handling and storage

7.1 Precaution for safe handling
Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards.

7.2. Conditions for safe storage, including any incompatibilities
Keep tightly closed.
Store at +2 - +8 °C.

7.3. Specific end uses
Apart from the use mentioned in section 1.2. no other specific uses are stipulated

---

8. Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls
Technical measures to reduce safety risk for the operator should be given priority over the use of personal protective equipment.

**Individual protection measures**

**Hygiene measures:** Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards. Do not eat, drink, smoke or apply makeup in areas where specimens or kit reagents are handled.

**Eye protection:** Wear safety glasses.

**Hand protection:** wear safety gloves
The gloves must comply with the specifications of the directive EC 89/686/EEC and the related standard EN374.

**Respiratory protection:** Not necessary

**Environmental exposure control:** Do not empty into drains

---

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>alcohol-like</td>
</tr>
<tr>
<td>pH-Value</td>
<td>no information available</td>
</tr>
<tr>
<td>Melting point</td>
<td>- 89,5 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>82 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>12,0 °C – closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>3,0</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>2 % (V)</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>12,7 % (V)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>43,2 hPa at 20,0 °C</td>
</tr>
<tr>
<td></td>
<td>58,7 hPa at 25,0 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>0,785 g/ml at 25 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 0.05</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>425,0 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
</tbody>
</table>
Oxidizing properties
no information available

Other data
Surface tension 20.8 mN/m at 25.0 °C

10. Stability and reactivity

10.1. Reactivity
no information available

10.2. Chemical stability
no information available

10.3. Possibility of hazardous reactions
no information available

10.4. Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials
Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6. Hazardous decomposition products
Other decomposition products - no data available

11. Toxicological information

11.1. Information on toxicological effects (for isopropanol corresponding to manufacturer)

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD50 (oral)</td>
<td>5.045 mg/kg</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (inhalation)</td>
<td>16000 ppm (8h)</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (dermal)</td>
<td>12,800 mg/kg</td>
<td>rabbit</td>
</tr>
</tbody>
</table>

Skin irritation
Mild skin irritation
Eye irritation
Eye irritation – 24h

CMR effects
No information available

Specific target organ toxicity
No information available

Aspiration hazard
No information available

11.2. Further information
Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes Causes serious eye irritation.

Signs and symptoms of exposure

Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.
12. Ecological information

12.1. Toxicity
Only relevant for the preservative sodium azide.

<table>
<thead>
<tr>
<th>Species</th>
<th>Type</th>
<th>Value</th>
<th>Exposition time (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathead minnow (Pimephales promelas)</td>
<td>LC$_{50}$ (mg/l)</td>
<td>9640</td>
<td>96</td>
</tr>
<tr>
<td>Invertebrate (Daphnia magna)</td>
<td>EC$_{50}$ (mg/l)</td>
<td>5102</td>
<td>24</td>
</tr>
<tr>
<td>Green algae (Desmodesmus subspicatus)</td>
<td>EC$_{50}$ (mg/l)</td>
<td>&gt;2000</td>
<td>72</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT- and vPvB-assessment
A PBT- and vPvB-assessment is not available, as a chemical safety assessment is not required/not conducted.

12.6. Other adverse effects
No information available

13. Disposal consideration

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transport information

**ADR/RID**
UN 1219 Isopropanol, 3, II

**IATA**
UN 1219 ISOPROPANOL, 3, II

**IMDG**
UN 1219 ISOPROPANOL, 3, II
EmS, F-E, S-D

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulation
This safety data sheet complies with the requirements of the regulation (EC) No. 1907/2006

15.2. Chemical safety assessment
no information available
16. Other information

Text of H-codes mentioned in section 2
H225  Highly flammable liquid and vapour.
H319  Causes serious eye irritation.
H336  May cause drowsiness or dizziness.

Precautionary statements
P210  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261  Avoid breathing dust/fume/gas/mist/vapours/spray.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.
1. Identification of the substance/preparation and the company/undertaking
   1.1. Product identifier
   Catalogue no.: IC1600is
   Product name: Vitamin AE internal standard (IS)

   1.2. Relevant identified uses of the substance or mixture and uses advised against
   materials for use in the appropriate testkit.

   1.3. Details of the supplier of the safety data sheet
   Company: ImmuChrom GmbH
   Lise-Meitner-Str. 13
   64646 Heppenheim
   Tel.: +49 6252 910084
   Fax: +49 6252 910070
   Email: info@immuchrom.de
   www.immuchrom.de

   1.4. Emergency telephone number
   Available during the normal working hours +49 6252 910084

2. Hazards identification
   2.1. Classification of the substance or mixture (Regulation (EC) No 1272/2008
   Flammable liquids (Category 2)
   Eye irritation (Category 2)
   Specific target organ toxicity - single exposure (Category 3)

   2.2. Label elements (Regulation (EC) No 1272/2008
   Hazard pictograms

   Signal word
   Danger

   Hazard statements
   H225 Highly flammable liquid and vapour.
   H319 Causes serious eye irritation.
   H336 May cause drowsiness or dizziness.

   Precautionary statements
   P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
   P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
   P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
3. Composition/information on ingredients

The mixture contains the substances listed below and substances without dangerous potential.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EINECS</th>
<th>Description</th>
<th>Percent</th>
<th>H-codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>200-661-7</td>
<td>Isopropanol</td>
<td>&gt; 99.9</td>
<td>225, 319, 336</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures

General advice: First aider needs to protect himself.

**After inhalation:** Fresh air, in case of discomfort consult a physician.

**After skin contact:** Wash with plenty of water, remove contaminated clothing, in case of discomfort consult a physician.

**After eye contact:** Rinse out with plenty of water. Immediately contact an ophthalmologist.

**If swallowed:** Give water to drink (two glasses at most). Immediately consult a physician.

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

Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.

4.3. Indication of immediate medical attention and special treatment needed

No information available

5. Fire fighting measures

5.1. Extinguishing media

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2. Special hazards arising from the substance or the mixture

Carbon oxides

5.3. Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, observe emergency procedures, call an expert.

6.2. Environmental precaution

Do not empty into drains

6.3. Methods and materials for containment and cleaning up

Cover drains. Collect, bind and pump off spills.

6.4. Reference to other sections

For waste treatment refer to section 13
7. Handling and storage

7.1 Precaution for safe handling
Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards.

7.2. Conditions for safe storage, including any incompatibilities
Keep tightly closed.
Store at +2 - +8 °C.

7.3. Specific end uses
Apart from the use mentioned in section 1.2. no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls
Technical measures to reduce safety risk for the operator should be given priority over the use of personal protective equipment.

**Individual protection measures**

**Hygiene measures:** Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards. Do not eat, drink, smoke or apply makeup in areas where specimens or kit reagents are handled.

**Eye protection:** Wear safety glasses.

**Hand protection:** wear safety gloves
The gloves must comply with the specifications of the directive EC 89/686/EEC and the related standard EN374.

**Respiratory protection:** Not necessary

**Environmental exposure control:** Do not empty into drains

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>alcohol-like</td>
</tr>
<tr>
<td>pH-Value</td>
<td>no information available</td>
</tr>
<tr>
<td>Melting point</td>
<td>- 89,5 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>82 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>12,0 °C – closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>3,0</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>2 % (V)</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>12,7 % (V)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>43,2 hPa at 20,0 °C</td>
</tr>
<tr>
<td></td>
<td>58,7 hPa at 25,0 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>0,785 g/ml at 25 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 0,05</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>425,0 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
</tbody>
</table>
10. Stability and reactivity

10.1. Reactivity
no information available

10.2. Chemical stability
no information available

10.3. Possibility of hazardous reactions
no information available

10.4. Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials
Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6. Hazardous decomposition products
Other decomposition products - no data available

11. Toxicological information

11.1. Information on toxicological effects (for isopropanol corresponding to manufacturer)

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD50 (oral)</td>
<td>5,045 mg/kg</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (inhalation)</td>
<td>16000 ppm (8h)</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (dermal)</td>
<td>12,800 mg/kg</td>
<td>rabbit</td>
</tr>
</tbody>
</table>

Skin irritation
Mild skin irritation

Eye irritation
Eye irritation – 24h

CMR effects
No information available

Specific target organ toxicity
No information available

Aspiration hazard
No information available

11.2. Further information
Potential health effects

Inhalation
May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

Ingestion
May be harmful if swallowed.

Skin
May be harmful if absorbed through skin. May cause skin irritation.

Eyes
Causes serious eye irritation.

Signs and symptoms of exposure

Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.
12. Ecological information

12.1. Toxicity
Only relevant for the preservative sodium azide.

<table>
<thead>
<tr>
<th>Species</th>
<th>Type</th>
<th>Value</th>
<th>Exposition time (h)</th>
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<tbody>
<tr>
<td>Fathead minnow (Pimephales promelas)</td>
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<tr>
<td>Green algae (Desmodesmus subspicatus)</td>
<td>EC50 (mg/l)</td>
<td>&gt;2000</td>
<td>72</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT- and vPvB-assessment
A PBT- and vPvB-assessment is not available, as a chemical safety assessment is not required/not conducted.

12.6. Other adverse effects
No information available

13. Disposal consideration

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>UN 1219 Isopropanol, 3, II</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA</td>
<td>UN 1219 ISOPROPANOL, 3, II</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN 1219 ISOPROPANOL, 3, II</td>
</tr>
<tr>
<td></td>
<td>EmS, F-E, S-D</td>
</tr>
</tbody>
</table>

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulation
This safety data sheet complies with the requirements of the regulation (EC) No. 1907/2006

15.2. Chemical safety assessment
no information available
16. Other information

<table>
<thead>
<tr>
<th>Text of H-codes mentioned in section 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
</tr>
<tr>
<td>H319</td>
</tr>
<tr>
<td>H336</td>
</tr>
</tbody>
</table>

Precautionary statements

| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P261 | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.            |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.
1. Identification of the substance/preparation and the company/undertaking
   1.1. Product identifier
   Catalogue no.: IC1600fr
   Product name: Vitamin AE precipitation reagent (PREC)

2. Hazards identification
   2.1. Classification of the substance or mixture (Regulation (EC) No 1272/2008)
   Flammable liquids (Category 2)
   Eye irritation (Category 2)
   Specific target organ toxicity - single exposure (Category 3)

   2.2. Label elements (Regulation (EC) No 1272/2008)
   Hazard pictograms

   Signal word
   Danger

   Hazard statements
   H225   Highly flammable liquid and vapour.
   H319   Causes serious eye irritation.
   H336   May cause drowsiness or dizziness.

   Precautionary statements
   P210   Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
   P261   Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
   P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
3. Composition/information on ingredients

The mixture contains the substances listed below and substances without dangerous potential.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EINECS</th>
<th>Description</th>
<th>Percent</th>
<th>H-codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>200-661-7</td>
<td>Isopropanol</td>
<td>&gt; 99,9</td>
<td>225, 319, 336</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures

General advice: First aider needs to protect himself.

*After inhalation:* Fresh air, in case of discomfort consult a physician.

*After skin contact:* Wash with plenty of water, remove contaminated clothing, in case of discomfort consult a physician.

*After eye contact:* Rinse out with plenty of water. Immediately contact an ophthalmologist.

*If swallowed:* Give water to drink (two glasses at most). Immediately consult a physician.

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

Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.

4.3. Indication of immediate medical attention and special treatment needed

No information available

5. Fire fighting measures

5.1. Extinguishing media

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2. Special hazards arising from the substance or the mixture

Carbon oxides

5.3. Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, observe emergency procedures, call an expert.

6.2. Environmental precaution

Do not empty into drains

6.3. Methods and materials for containment and cleaning up

Cover drains. Collect, bind and pump off spills.

6.4. Reference to other sections

For waste treatment refer to section 13
7. Handling and storage

7.1 Precaution for safe handling
Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards.

7.2. Conditions for safe storage, including any incompatibilities
Keep tightly closed.
Store at +2 - +8 °C.

7.3. Specific end uses
Apart from the use mentioned in section 1.2. no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls
Technical measures to reduce safety risk for the operator should be given priority over the use of personal protective equipment.

Individual protection measures

Hygiene measures: Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards. Do not eat, drink, smoke or apply makeup in areas where specimens or kit reagents are handled.

Eye protection: Wear safety glasses.

Hand protection: wear safety gloves
The gloves must comply with the specifications of the directive EC 89/686/EEC and the related standard EN374.

Respiratory protection: Not necessary

Environmental exposure control: Do not empty into drains

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>alcohol-like</td>
</tr>
<tr>
<td>pH-Value</td>
<td>no information available</td>
</tr>
<tr>
<td>Melting point</td>
<td>- 89,5 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>82 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>12,0 °C – closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>3,0</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no information available</td>
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<tr>
<td>Lower explosion limit</td>
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<tr>
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</tr>
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<td>Vapour pressure</td>
<td>43,2 hPa at 20,0 °C</td>
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<tr>
<td></td>
<td>58,7 hPa at 25,0 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>0,785 g/ml at 25 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 0,05</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>425,0 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
</tbody>
</table>
Oxidizing properties
no information available
Other data
Surface tension 20.8 mN/m at 25.0 °C

10. Stability and reactivity

10.1. Reactivity
no information available

10.2. Chemical stability
no information available

10.3. Possibility of hazardous reactions
no information available

10.4. Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials
Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6. Hazardous decomposition products
Other decomposition products - no data available

11. Toxicological information

11.1. Information on toxicological effects (for isopropanol corresponding to manufacturer)

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
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</thead>
<tbody>
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<td></td>
<td>LD50 (oral)</td>
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<td>rat</td>
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<td></td>
<td>LD50 (inhalation)</td>
<td>16000 ppm (8h)</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (dermal)</td>
<td>12,800 mg/kg</td>
<td>rabbit</td>
</tr>
</tbody>
</table>

Skin irritation
Mild skin irritation

Eye irritation
Eye irritation – 24h

CMR effects
No information available

Specific target organ toxicity
No information available

Aspiration hazard
No information available

11.2. Further information

Potential health effects

Inhalation
May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

Ingestion
May be harmful if swallowed.

Skin
May be harmful if absorbed through skin. May cause skin irritation.

Eyes
Causes serious eye irritation.

Signs and symptoms of exposure

Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.
12. Ecological information

12.1. Toxicity
Only relevant for the preservative sodium azide.

<table>
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<tr>
<th>Species</th>
<th>Type</th>
<th>Value</th>
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</tr>
</thead>
<tbody>
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<td>LC₅₀ (mg/l)</td>
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<td>Invertebrate (Daphnia magna)</td>
<td>EC₅₀ (mg/l)</td>
<td>5102</td>
<td>24</td>
</tr>
<tr>
<td>Green algae (Desmodesmus subspicatus)</td>
<td>EC₅₀ (mg/l)</td>
<td>&gt;2000</td>
<td>72</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT- and vPvB-assessment
A PBT- and vPvB-assessment is not available, as a chemical safety assessment is not required/not conducted.

12.6. Other adverse effects
No information available

13. Disposal consideration

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>UN 1219 Isopropanol, 3, II</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA</td>
<td>UN 1219 ISOPROPANOL, 3, II</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN 1219 ISOPROPANOL, 3, II</td>
</tr>
<tr>
<td></td>
<td>EmS, F-E, S-D</td>
</tr>
</tbody>
</table>

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulation
This safety data sheet complies with the requirements of the regulation (EC) No. 1907/2006

15.2. Chemical safety assessment
no information available
16. Other information

Text of H-codes mentioned in section 2
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.
1. Identification of the substance/preparation and the company/undertaking
   1.1. Product identifier
   Catalogue no.: IC1600st
   Product name: Vitamin AE standard (STD)

1.2. Relevant identified uses of the substance or mixture and uses advised against
   materials for use in the appropriate testkit.

1.3. Details of the supplier of the safety data sheet
   Company: ImmuChrom GmbH
   Lise-Meitner-Str. 13
   64646 Heppenheim
   Tel.: +49 6252 910084
   Fax: +49 6252 910070
   Email: info@immuchrom.de
   www.immuchrom.de

1.4. Emergency telephone number
   Available during the normal working hours +49 6252 910084

2. Hazards identification
   2.1. Classification of the substance or mixture (Regulation (EC) No 1272/2008)
      Flammable liquids (Category 2)
      Eye irritation (Category 2)
      Specific target organ toxicity - single exposure (Category 3)

   2.2. Label elements (Regulation (EC) No 1272/2008)
      Hazard pictograms

      Signal word
      Danger

      Hazard statements
      H225 Highly flammable liquid and vapour.
      H319 Causes serious eye irritation.
      H336 May cause drowsiness or dizziness.

      Precautionary statements
      P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
      P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
      P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
3. Composition/information on ingredients

The mixture contains the substances listed below and substances without dangerous potential.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EINECS</th>
<th>Description</th>
<th>Percent</th>
<th>H-codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>200-661-7</td>
<td>Isopropanol</td>
<td>&gt; 99.9</td>
<td>225, 319, 336</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures
General advice: First aider needs to protect himself.

**After inhalation:** Fresh air, in case of discomfort consult a physician.

**After skin contact:** Wash with plenty of water, remove contaminated clothing, in case of discomfort consult a physician.

**After eye contact:** Rinse out with plenty of water. Immediately contact an ophthalmologist.

**If swallowed:** Give water to drink (two glases at most). Immediately consult a physician.

4.2. Most important symptoms and effects, both acute and delayed
Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.

4.3. Indication of immediate medical attention and special treatment needed
No information available

5. Fire fighting measures

5.1. Extinguishing media
Suitable extinguishing media: For small (incipient) fires, use media such as “alcohol” foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2. Special hazards arising from the substance or the mixture
Carbon oxides

5.3. Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation, observe emergency procedures, call an expert.

6.2. Environmental precaution
Do not empty into drains

6.3. Methods and materials for containment and cleaning up
Cover drains. Collect, bind and pump off spills.

6.4. Reference to other sections
For waste treatment refer to section 13
7. Handling and storage

7.1 Precaution for safe handling
Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards.

7.2. Conditions for safe storage, including any incompatibilities
Keep tightly closed.
Store at +2 - +8 °C.

7.3. Specific end uses
Apart from the use mentioned in section 1.2. no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls
Technical measures to reduce safety risk for the operator should be given priority over the use of personal protective equipment.

Individual protection measures

Hygiene measures: Wear disposable gloves while handling specimens or kit reagents and wash hands thoroughly afterwards. Do not eat, drink, smoke or apply makeup in areas where specimens or kit reagents are handled.

Eye protection: Wear safety glasses.

Hand protection: wear safety gloves
The gloves must comply with the specifications of the directive EC 89/686/EEC and the related standard EN374.

Respiratory protection: Not necessary

Environmental exposure control: Do not empty into drains

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>alcohol-like</td>
</tr>
<tr>
<td>pH-Value</td>
<td>no information available</td>
</tr>
<tr>
<td>Melting point</td>
<td>- 89,5 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>82 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>12,0 °C – closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>3,0</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>2 % (V)</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>12,7 % (V)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>43,2 hPa at 20,0 °C</td>
</tr>
<tr>
<td></td>
<td>58,7 hPa at 25,0 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>0,785 g/ml at 25 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 0.05</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>425,0 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
</tbody>
</table>
Oxidizing properties
no information available

Other data
Surface tension
20,8 mN/m at 25,0 °C

10. Stability and reactivity

10.1. Reactivity
no information available

10.2. Chemical stability
no information available

10.3. Possibility of hazardous reactions
no information available

10.4. Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials
Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6. Hazardous decomposition products
Other decomposition products - no data available

11. Toxicological information

11.1. Information on toxicological effects (for isopropanol corresponding to manufacturer)

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD50 (oral)</td>
<td>5,045 mg/kg</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (inhalation)</td>
<td>16000 ppm (8h)</td>
<td>rat</td>
</tr>
<tr>
<td></td>
<td>LD50 (dermal)</td>
<td>12,800 mg/kg</td>
<td>rabbit</td>
</tr>
</tbody>
</table>

Skin irritation
Mild skin irritation

Eye irritation
Eye irritation – 24h

CMR effects
No information available

Specific target organ toxicity
No information available

Aspiration hazard
No information available

11.2. Further information

Potential health effects

Inhalation
May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

Ingestion
May be harmful if swallowed.

Skin
May be harmful if absorbed through skin. May cause skin irritation.

Eyes
Causes serious eye irritation.

Signs and symptoms of exposure

Central nervous system depression, prolonged or repeated exposure can cause: Nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild, reversible liver effects.
12. Ecological information

12.1. Toxicity
Only relevant for the preservative sodium azide.

<table>
<thead>
<tr>
<th>Species</th>
<th>Type</th>
<th>Value (mg/l)</th>
<th>Exposition time (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathead minnow (Pimephales promelas)</td>
<td>LC₅₀</td>
<td>9640</td>
<td>96</td>
</tr>
<tr>
<td>Invertebrate (Daphnia magna)</td>
<td>EC₅₀</td>
<td>5102</td>
<td>24</td>
</tr>
<tr>
<td>Green algae (Desmodesmus subspicatus)</td>
<td>EC₅₀</td>
<td>&gt;2000</td>
<td>72</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT- and vPvB-assessment
A PBT- and vPvB-assessment is not available, as a chemical safety assessment is not required/not conducted.

12.6. Other adverse effects
No information available

13. Disposal consideration

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>UN 1219 Isopropanol, 3, II</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA</td>
<td>UN 1219 ISOPROPANOL, 3, II</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN 1219 ISOPROPANOL, 3, II</td>
</tr>
<tr>
<td></td>
<td>EmS, F-E, S-D</td>
</tr>
</tbody>
</table>

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulation
This safety data sheet complies with the requirements of the regulation (EC) No. 1907/2006

15.2. Chemical safety assessment
No information available
16. Other information

Text of H-codes mentioned in section 2
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.