## Nomenclature of the product

<table>
<thead>
<tr>
<th>Description</th>
<th>Component</th>
<th>Nb of vials</th>
<th>pH</th>
<th>Color</th>
<th>Physical state</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOL-WASH-R3</td>
<td>SOL-WASH-R3</td>
<td>1</td>
<td>7</td>
<td>Colorless</td>
<td>Liquid</td>
</tr>
<tr>
<td>TRA-BI-INS-IRMA</td>
<td>BI-INS-TRA</td>
<td>1</td>
<td>8</td>
<td>Red</td>
<td>Liquid</td>
</tr>
<tr>
<td>CT-BI-INS-IRMA</td>
<td>CT-BI-INS</td>
<td>2</td>
<td>-</td>
<td>Colorless</td>
<td>Solid</td>
</tr>
<tr>
<td>RIP-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Red</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL0-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL1-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL2-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL3-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL4-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL5-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL6-BI-INS-IRMA</td>
<td>BI-INS-PR</td>
<td>1</td>
<td>8</td>
<td>Blue</td>
<td>Liquid</td>
</tr>
<tr>
<td>CONT-BI-INS-IRMA</td>
<td></td>
<td>1</td>
<td>-</td>
<td>White</td>
<td>Solid</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: RIP-BI-INS-IRMA  BI-INS-PR
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 466 967 05 - Fax : +33 466 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0) 1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: RIP-BI-INS-IRMA  BI-INS-PR

Substances contained in this product:
2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing. ;
Additional information:
Section 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic; Other information:

6.4 Reference to other sections
Additional information:

Section 7 : Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet.; Remove contaminated, saturated clothing.; Wash hands before breaks and after work.;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8 : Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 **Occupational exposure limits:**

- OSHA (USA)

8.1.2 **DNEL/PNEC-values:**

- DNEL worker
  - DNEL consumer
  - PNEC

8.2 **Exposure controls**

8.2.1 **Appropriate engineering controls:**
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 **Personal protective equipment:**
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 **Environmental exposure controls:**
Consumer exposure control

Section 9: Physical and chemical properties

9.1 **Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature [°C]</th>
<th>Pressure [kPa]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PH</strong></td>
<td>7.85</td>
<td></td>
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<tr>
<td>Melting point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate [kg/m²/h]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses. Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:
Animal data:
Assessment / Classification:
  - Carcinogenicity
Practical experience / human evidence:
Animal data:
Other information:
Assessment / Classification:
  - Reproductive toxicity
Practical experience / human evidence:
Animal data:
Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

  Animal data:
  
  Other information:
  
  - STOT SE 3

  Practical experience / human evidence:
  
  Other information:
  
  **Assessment / Classification:**

- **Specific target organ toxicity (repeated exposure)**

  Practical experience / human evidence:
  
  Animal data:
  
  **Assessment / Classification:**
  
  Other information

- **Aspiration hazard**

  Practical experience / human evidence:
  
  Experimental data: viscosity data: see SECTION 9.
  
  **Assessment / Classification:**
  
  **Remark:**

  11.1.1 **Mixtures**
  
  No toxicological information is available for the mixture itself

### Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

#### 12.1 **Aquatic toxicity:**

- **Acute (short-term) fish toxicity**

- **Chronic (long-term) fish toxicity**

- **Acute (short-term) toxicity to crustacea**

- **Chronic (long-term) toxicity to crustacea**

- **Acute (short-term) toxicity to algae and cyanobacteria**

- **Toxicity to microorganisms and other aquatic plants / organisms**
Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.;

Other disposal recommendations:
Additional information:

Section 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: RIP-BI-INS-IRMA BI-INS-PR
Version: US, Page 10 of 11, Revision date: 03/05/2019

ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS: Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: TRA-BI-INS-IRMA  BI-INS-TRA
CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 9 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

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http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: TRA-BI-INS-IRMA  BI-INS-TRA

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards
The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annex XIII of the REACH regulations EC 1907/2006.

Adverse human health effects: The mixture contains radioactive material;
Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ; Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ; Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing ; Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ; Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ; Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products ;

5.3 Advice for fire-fighters
Wear Protective clothing. ;
Additional information:
Section 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions

Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up

For cleaning up: Suitable material for taking up: Absorbing material, organic;

Other information:

6.4 Reference to other sections

Additional information:

Section 7 : Handling and storage

7.1 Precautions for safe handling

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;

Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;

Hints on storage assembly:

Materials to avoid:

Further information on storage conditions:

7.3 Specific end uses:

Recommendations on specific end uses:

Section 8 : Exposure controls/personal protection

8.1 Control parameters

Preliminary remark:
8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker
  - DNEL consumer
  - PNEC

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields; Skin protection: Gloves; Laboratory coats; Respiratory protection: Ensure adequate ventilation; Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.75</td>
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<td>Melting point (°C)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type 1) (%)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
## Upper/lower flammability or explosive limits

<table>
<thead>
<tr>
<th>Upper explosive limit (%)</th>
<th>Lower explosive limit (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Vapour pressure (kPa)

<table>
<thead>
<tr>
<th>Vapour pressure (kPa)</th>
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</thead>
<tbody>
<tr>
<td></td>
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## Vapour density (g/cm³)

<table>
<thead>
<tr>
<th>Vapour density (g/cm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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## Densities

<table>
<thead>
<tr>
<th>Density (g/cm³)</th>
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<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Relative density (g/cm³)</th>
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<tbody>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Bulk density (g/cm³)</th>
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</thead>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical density (g/cm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Solubility (Type: ) (g/L)

<table>
<thead>
<tr>
<th>Solubility (Type: ) (g/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Partition coefficient (log Pow)

<table>
<thead>
<tr>
<th>Partition coefficient (log Pow)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## n-octanol/water at pH:

<table>
<thead>
<tr>
<th>n-octanol/water at pH:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Auto-ignition temperature [°C]

<table>
<thead>
<tr>
<th>Auto-ignition temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Decomposition temperature [°C]

<table>
<thead>
<tr>
<th>Decomposition temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Decomposition energy : kJ

<table>
<thead>
<tr>
<th>Decomposition energy : kJ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Viscosity

<table>
<thead>
<tr>
<th>Viscosity, dynamic (poiseuille)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Viscosity, cinematic (cm³/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Explosive properties

<table>
<thead>
<tr>
<th>Explosive properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Oxidising properties

<table>
<thead>
<tr>
<th>Oxidising properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### 9.2 Other information:

No other relevant data available

### Section 10: Stability and reactivity

#### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.;

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions

#### 10.4 Conditions to avoid:

#### 10.5 Incompatible materials:

#### 10.6 Hazardous decomposition products:

Does not decompose when used for intended uses.; Thermal decomposition can lead to the escape of irritating gases and vapors.;

### Section 11: Toxicological information

Toxicokinetics, metabolism and distribution

#### 11.1 Information on toxicological effects

**Substances**

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

• Skin corrosion/Irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

• Eye damage/Irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

• CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  o Germ cell mutagenicity:

Animal data:
Assessment / Classification:
  o Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
  o Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 **Mixtures**

No toxicological information is available for the mixture itself

Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

**12.1 Aquatic toxicity:**

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms
Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:
Abiotic Degradation:
Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation;

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID: 290, 325
Limited quantities for ADR/RID: 0 Excepted Quantities for ADR/RID: E0
Packing Instructions for ADR/RID: See 4.1.9.1.3
Special packing provisions for ADR/RID: See 4.1.9.1.3
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling: CV33
Special Provisions for carriage Operation: S5, S13, S21
Hazard identification No: Transport category (Tunnel restriction code): 4

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: See 4.1.9 Limited quantities for IMDG: None
Packing instructions for IMDG: See 4.1.9 IBC Instructions: See 4.1.9
IMC Provisions: See 4.1.9 IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS: F-I, S-S Stowage and segregation for IMDG: Category A.
Properties and observations: See 1.1.3.1.1 and IAEA Transport Schedule 1.

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN: 290, 368
Limited quantities ADN: 0 Excepted quantities ADN: E0
Carriage permitted: Equipment required: PP
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights: 0
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions: Forbidden
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity: See 10.3
Passenger and Cargo Aircraft Packaging Instructions: See 10.3
Cargo Aircraft only Packaging Instructions: See 10.3
Cargo Aircraft only Maximal Net Quantity: See 10.3
ERG code: 7L Special Provisions for IATA: A23, A130

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CT-BI-INS-IRMA  CT-BI-INS
Version: US, Page 1 of 11, Revision date: 21/05/2019

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

1.1 Product identifier:
Designation / Trade name: CT-BI-INS-IRMA  CT-BI-INS
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 9 67 05 - Fax : +33 4 66 79 67 50
E-Mail (competent person): mds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday: 9:00 am to 5:30 pm GMT+2

Section 2 : Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CT-BI-INS-IRMA  CT-BI-INS

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards

The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annex XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing. ;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic.; Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.; Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work; Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet.; Remove contaminated, saturated clothing.; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 Occupational exposure limits:
- OSHA (USA)

8.1.2 DNEL/PNEC-values:
- DNEL worker
- DNEL consumer
- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration mol/L</th>
<th>Method</th>
<th>Temperature °C</th>
<th>Pressure kPa</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Colorless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold (ppm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type: %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses. Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/Irritation

Animal data:
In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/Irritation

Animal data:
In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:
Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:
Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

**12.1 Aquatic toxicity:**

**Acute (short-term) fish toxicity**

**Chronic (long-term) fish toxicity**

**Acute (short-term) toxicity to crustacea**

**Chronic (long-term) toxicity to crustacea**

**Acute (short-term) toxicity to algae and cyanobacteria**

**Toxicity to microorganisms and other aquatic plants / organisms**
Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation. ;

Other disposal recommendations:
Additional information:

Section 14: Transport information

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID: Portable tanks and bulk containers Instructions:
Special packing provisions for ADR/RID: Mixed packing provisions:
Portable tanks and bulk containers Special Provisions:
**Safety Data Sheet**

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CT-BI-INS-IRMA  CT-BI-INS
Version: US, Page 10 of 11, Revision date: 21/05/2019

<table>
<thead>
<tr>
<th>ADR Tank Code:</th>
<th>ADR Tank special provisions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle for tank carriage:</td>
<td>Special provisions for carriage Bulk:</td>
</tr>
<tr>
<td>Special provisions for carriage for loading, unloading and handling:</td>
<td>Special Provisions for carriage Operation:</td>
</tr>
<tr>
<td>Hazard identification No:</td>
<td>Transport category (Tunnel restriction code):</td>
</tr>
</tbody>
</table>

**Sea transport (IMDG)**

Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IMO tank instructions:
IBC Provisions: Tanks and bulk Provisions:
UN tank instructions: Stowage and segregation for IMDG:
Ems: Properties and observations:

**Inland waterway transport (ADN)**

Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading: Number of blue cones/lights:
Provisions concerning carriage: Remark:

**Air transport (ICAO-TI / IATA-DGR)**

Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:

**Section 15 : Regulatory information**

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

15.2 *Chemical Safety Assessment:*

For the following substances of this mixture a chemical safety assessment has been carried out:

**Section 16 : Other information**

16.1 *Indication of changes*

Date of the previous version: 25/02/2019
Modifications:
16.2 **Abbreviations and acronyms:**

16.3 **Key literature references and sources for data**

16.4 **Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):**

See SECTION 2.1 (classification).

16.5 **Relevant R-, H- and EUH-phrases (number and full text):**
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: SOL-WASH-R3  SOL-WASH-R3
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

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Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
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(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive toxicity - Repr. 1B - H360</td>
<td>Repr. 1B</td>
<td>H360</td>
<td>P201</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation - Eye Dam. 1 - H318</td>
<td>Eye Dam. 1</td>
<td>H318</td>
<td>P280</td>
</tr>
</tbody>
</table>
2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: SOL-WASH-R3  SOL-WASH-R3

Substances contained in this product:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>26628-22-8</td>
<td>01-004-00-7</td>
<td>247-852-1</td>
</tr>
<tr>
<td>imidazole</td>
<td>288-32-4</td>
<td>213-319-00-0</td>
<td>206-019-2</td>
</tr>
</tbody>
</table>

Hazard pictograms

GHS05-acid
GHS08-silhouette

Signal word:
Danger

Hazard and precautionary statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase de risque</th>
</tr>
</thead>
<tbody>
<tr>
<td>H314</td>
<td>Provoque des brûlures de la peau et de graves lésions des yeux.</td>
</tr>
<tr>
<td>H318</td>
<td>Provoque de graves lésions des yeux.</td>
</tr>
<tr>
<td>H360</td>
<td>Peut nuire à la fertilité ou au fœtus (indiquer l’effet s’il est connu) (indiquer la voie d’exposition s’il est formellement prouvé qu’aucune autre voie d’exposition ne conduit au même danger)</td>
</tr>
<tr>
<td>P201</td>
<td>Se procurer les instructions avant utilisation.</td>
</tr>
<tr>
<td>P202</td>
<td>Ne pas manipuler avant d’avoir lu et compris toutes les précautions de sécurité.</td>
</tr>
<tr>
<td>P260</td>
<td>Ne pas respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.</td>
</tr>
<tr>
<td>P264</td>
<td>Se laver … soigneusement après manipulation.</td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
</tr>
<tr>
<td>P301 + P330 + P331</td>
<td>EN CAS D’INGESTION: Rincer la bouche. NE PAS faire vomir.</td>
</tr>
<tr>
<td>P303 + P361 + P353</td>
<td>EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l’eau [ou se doucher].</td>
</tr>
<tr>
<td>P304 + P340</td>
<td>EN CAS D’INHALATION: Transporter la personne à l’extérieur et la maintenir dans une position où elle peut confortablement respirer.</td>
</tr>
<tr>
<td>P305 + P351 + P338</td>
<td>EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l’eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.</td>
</tr>
<tr>
<td>P308 + P313</td>
<td>EN CAS d’exposition prouvée ou suspectée: Demander un avis médical/Consulter un médecin.</td>
</tr>
<tr>
<td>P310</td>
<td>Appeler immédiatement un CENTRE ANTIPOISON/un médecin/…</td>
</tr>
<tr>
<td>P321</td>
<td>Traitements spécifiques (voir … sur cette étiquette).</td>
</tr>
<tr>
<td>P363</td>
<td>Laver les vêtements contaminés avant réutilisation.</td>
</tr>
<tr>
<td>P405</td>
<td>Garder sous clef.</td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/contenant dans…</td>
</tr>
</tbody>
</table>
2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3 : Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>imidazole</td>
<td>288-32-4</td>
<td>613-319-00-0</td>
<td>206-019-2</td>
<td>Acute toxicity - Acute Tox. 4 - H302 - Ora Reproductive toxicity - Repr.1B - H360 Skin corrosion/irritation - Skin Corr.1C - H314</td>
<td>&lt; 25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sodium azide</td>
<td>26628-22-8</td>
<td>011-004-00-7</td>
<td>247-852-1</td>
<td>Acute toxicity - Acute Tox. 2 - H300 - Ora Hazardous to the aquatic environment - Aquatic Acute 1 - H400 Hazardous to the aquatic environment - Aquatic Chronic 1 - H410</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4 : First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended. ; Following inhalation: In case of respiratory tract irritation, consult a physician. ; Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ; Following ingestion: Do NOT induce vomiting. ; Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date. ; Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5 : Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing. ;
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.;

6.2 Environmental precautions
Do not allow to enter into surface water or drains.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:
- OSHA (USA)
## Safety Data Sheet

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: SOL-WASH-R3  SOL-WASH-R3
Version: US, Page 6 of 13, Revision date: 03/05/2019

### 8.1.2 DNEL/PNEC-values:

#### DNEL worker

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m³)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26628-22-8 / 247-852-1</td>
<td>247-852-1</td>
<td>26628-22-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DNEL consumer

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26628-22-8 / 247-852-1</td>
<td>247-852-1</td>
<td>26628-22-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PNEC

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>PNEC AQUATIC (mg/L)</th>
<th>PNEC Sediment (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>freshwater</td>
<td>marine water</td>
<td>intermittent release</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL) from 29 CFR 1910.1000

Source: TRGS 903, November 2015, BAuA

Source: GESTIS – substance database

Source: INERIS

Source: GESTIS – substance database

Source: GESTIS – substance database

Source: GESTIS – substance database
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Colorless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold (ppm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.2 **Other information:**

No other relevant data available

**Section 10 : Stability and reactivity**

10.1 **Reactivity**

This material is considered to be non-reactive under normal use conditions.

10.2 **Chemical stability**

10.3 **Possibility of hazardous reactions**

10.4 **Conditions to avoid:**

10.5 **Incompatible materials:**

10.6 **Hazardous decomposition products:**

Does not decompose when used for intended uses.

**Section 11 : Toxicological information**

Toxicokinetics, metabolism and distribution

11.1 **Information on toxicological effects**

**Substances**

- **Acute toxicity**

**Animal data:**

Acute oral toxicity:
Designation / Trade name: SOL-WASH-R3  SOL-WASH-R3
Version: US, Page 9 of 13, Revision date: 03/05/2019

<table>
<thead>
<tr>
<th>Substance name</th>
<th>LD50 (mg/kg)</th>
<th>Species</th>
<th>Method</th>
<th>Symptoms / delayed effects</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>288-32-4 / 206-019-2</td>
<td>970-970</td>
<td>Rat</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:
  - Skin corrosion/irritation

Animal data:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Species</th>
<th>Method</th>
<th>Exposure time</th>
<th>Result/evaluation</th>
<th>Score</th>
<th>Remark</th>
</tr>
</thead>
</table>

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:
  - Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:
  - CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
    - Germ cell mutagenicity:

Animal data:
Assessment / Classification:
  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
  - Reproductive toxicity

Practical experience / human evidence:
Animal data:
<table>
<thead>
<tr>
<th>Substance name</th>
<th>NOEC</th>
<th>Exposure route</th>
<th>Species</th>
</tr>
</thead>
</table>

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:
- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

Section 12 : Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 **Aquatic toxicity:**
Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity
Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

ADR/RID/AND/IMDG/IATA

| UN No.       | UN Proper shipping name | Transport hazard class(es) | Hazard label(s) | Packing group |
|--------------|-------------------------|----------------------------|-----------------|---------------|---------------|
|              |                         |                             |                 |               |               |
|              |                         |                             |                 |               |               |
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
ADR Tank Code:
Vehicle for tank carriage:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No:

Sea transport (IMDG)
Marine Pollutant:
Subsidiary risk(s) for IMDG:
Packing provisions for IMDG:
Limited quantities for IMDG:
Packing Instructions for IMDG:
IBC Instructions:
UN tank instructions:
IMO tank instructions:
EmS:
Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN:
Special Provisions ADN:
Limited quantities ADN:
Excepted quantities ADN:
Carriage permitted:
Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage:
Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA:
Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code:
Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:
Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data:

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H300</td>
<td>Fatal if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H360</td>
<td>May damage fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: CAL0-BI-INS-IRMA

CAS No.: EC No.: REACH No.: Index No:

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

Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

France - Numéro ORFILA (INRS) : + 33 (0) 1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL0-BI-INS-IRMA

Substances contained in this product:
2.3 Other hazards
The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down.; Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air.; Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing.; Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.; Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.;

Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing.;
Additional information:
Section 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).;

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7 : Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet.; Remove contaminated, saturated clothing.; Wash hands before breaks and after work.;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8 : Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 Occupational exposure limits:
- OSHA (USA)

8.1.2 DNEL/PNEC-values:
- DNEL worker
- DNEL consumer
- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Blue</td>
</tr>
<tr>
<td>Odour</td>
<td></td>
</tr>
<tr>
<td>Odour threshold [ppm]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature [°C]</th>
<th>Pressure [kPa]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.75</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Melting point [°C]</td>
<td></td>
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<tr>
<td>Freezing point [°C]</td>
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<td>Initial boiling point [°C]</td>
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<td>Flash point [°C]</td>
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<td></td>
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<td></td>
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<tr>
<td>Evaporation rate [kg/m²/h]</td>
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</tr>
<tr>
<td>Flammability [type 1] [%]</td>
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</tr>
</tbody>
</table>
**Safety Data Sheet**
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200[g])

Designation / Trade name: CAL0-BI-INS-IRMA
Version: US, Page 6 of 11, Revision date: 03/05/2019

---

### 9.2 Other information:

No other relevant data available

---

### Section 10: Stability and reactivity

#### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions

#### 10.4 Conditions to avoid:

#### 10.5 Incompatible materials:

#### 10.6 Hazardous decomposition products:

Does not decompose when used for intended uses; Thermal decomposition can lead to the escape of irritating gases and vapors.

---

### Section 11: Toxicological information

Toxicokinetics, metabolism and distribution

#### 11.1 Information on toxicological effects

**Substances**

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/Irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/Irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 **Aquatic toxicity:**

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms
Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
<th>UN No.</th>
<th>UN Proper shipping name</th>
<th>Transport hazard classes</th>
<th>Hazard label(s)</th>
<th>Packing group</th>
</tr>
</thead>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):

See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL1-BI-INS-IRMA

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL1-BI-INS-IRMA

Substances contained in this product:
2.3 Other hazards

The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended.; Remove affected person from the danger area and lay down.;
Following inhalation: In case of respiratory tract irritation, consult a physician.; Provide fresh air.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting.; Give nothing to eat or drink.; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing.;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8). ;

6.2 Environmental precautions
Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained. ;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic ; Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: Inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ; Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ; Fire prevention:
Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ; Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice ; Observe technical data sheet ; Remove contaminated, saturated clothing ; Wash hands before breaks and after work. ;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed. ; Keep-store only in original container or in properly labeled containers ; Hints on storage assembly:
Materials to avoid: Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL1-BI-INS-IRMA
Version: US, Page 5 of 11, Revision date: 03/05/2019

8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures): Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical state</th>
<th>Colour</th>
<th>Odour</th>
<th>Odour threshold (ppm)</th>
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<tbody>
<tr>
<td>Liquid</td>
<td>Blue</td>
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</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration/mol/L</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.75</td>
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<td></td>
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<td></td>
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<tr>
<td>Melting point (°C)</td>
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<tr>
<td>Freezing point (°C)</td>
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<tr>
<td>Initial boiling point/boiling range (°C)</td>
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</tr>
<tr>
<td>Flash point (°C)</td>
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<tr>
<td>Evaporation rate (kg/m²/h)</td>
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<tr>
<td>Flammability (type : %)</td>
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<td></td>
</tr>
</tbody>
</table>
9.2 Other information:
No other relevant data available

Section 10 : Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.;

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.; Thermal decomposition can lead to the escape of irritating gases and vapors.;

Section 11 : Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

*Animal data:

*Other information:
  - STOT SE 3

*Practical experience / human evidence:

*Other information:

*Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

*Practical experience / human evidence:

*Animal data:

*Assessment / Classification:

- **Aspiration hazard**

*Practical experience / human evidence:

*Experimental data: viscosity data: see SECTION 9.

*Assessment / Classification:

*Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 **Aquatic toxicity:**

- Acute (short-term) fish toxicity
- Chronic (long-term) fish toxicity
- Acute (short-term) toxicity to crustacea
- Chronic (long-term) toxicity to crustacea
- Acute (short-term) toxicity to algae and cyanobacteria
- Toxicity to microorganisms and other aquatic plants / organisms
Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
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<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
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<tr>
<td>Hazard label(s)</td>
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<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID):
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):

See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL2-BI-INS-IRMA
CAS No.: Index No.: EC No.: REACH No.: 

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France- Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL2-BI-INS-IRMA

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards
The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing. ;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8);

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.;
Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet.; Remove contaminated, saturated clothing; Wash hands before breaks and after work.;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 Occupational exposure limits:
- OSHA (USA)

8.1.2 DNEL/PNEC-values:
- DNEL worker
- DNEL consumer
- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature [°C]</th>
<th>Pressure [kPa]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH</strong></td>
<td>7.75</td>
<td></td>
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<td></td>
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<tr>
<td>Melting point [°C]</td>
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<tr>
<td>Freezing point [°C]</td>
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<td></td>
</tr>
<tr>
<td>Initial boiling point [°C]</td>
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<td></td>
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<tr>
<td>Flash point [°C]</td>
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<td></td>
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</tr>
<tr>
<td>Evaporation rate [kg/m²/h]</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Flammability (type : %)</td>
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</tr>
</tbody>
</table>
9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses. Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:
  - Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:
  - Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:
  - CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
    - Germ cell mutagenicity:

Animal data:
Assessment / Classification:
  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification: Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures

No toxicological information is available for the mixture itself

Section 12 : Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:

**Acute (short-term) fish toxicity**

**Acute (long-term) fish toxicity**

**Acute (short-term) toxicity to crustacea**

**Chronic (long-term) toxicity to crustacea**

**Acute (short-term) toxicity to algae and cyanobacteria**

**Toxicity to microorganisms and other aquatic plants / organisms**
Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):

See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL3-BI-INS-IRMA
CAS No.: Index No.: EC No.: REACH No.: 

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

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Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL3-BI-INS-IRMA

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3 : Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4 : First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended.; Remove affected person from the danger area and lay down.; Following inhalation: In case of respiratory tract irritation, consult a physician.; Provide fresh air.; Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing.; Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;

Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.; Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5 : Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing.;

Additional information:
Section 6: Accidental release measures

6.1 **Personal precautions, protective equipment and emergency procedures**
Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8). ;

6.2 **Environmental precautions**
Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained. ;

6.3 **Methods and material for containment and cleaning up**
For cleaning up: Suitable material for taking up: Absorbing material, organic ; Other information:

6.4 **Reference to other sections**
Additional information:

Section 7: Handling and storage

7.1 **Precautions for safe handling**
Protective measures: Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ; Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice ; Observe technical data sheet. ; Remove contaminated, saturated clothing. ; Wash hands before breaks and after work. ;

7.2 **Conditions for safe storage, including any incompatibilities**
Requirements for storage rooms and vessels: Keep container tightly closed. ; Keep-store only in original container or in properly labeled containers ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 **Specific end uses:**
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 **Control parameters**
Preliminary remark:
8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
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<td>Colour</td>
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<td>Odour</td>
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<td>Odour threshold (ppm)</td>
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<td>pH</td>
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<td>Melting point (°C)</td>
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<tr>
<td>Freezing point (°C)</td>
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<tr>
<td>Initial boiling point/boiling range (°C)</td>
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<td></td>
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</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Flammability (type :</td>
<td>%)</td>
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<td></td>
</tr>
</tbody>
</table>
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL3-BI-INS-IRMA
Version: US, Page 6 of 11, Revision date: 03/05/2019

9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses; Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances
- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/Irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/Irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 **Mixtures**

No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

**12.1 Aquatic toxicity:**

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms
Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.;

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>UN No.</th>
<th>UN Proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Hazard label(s)</th>
<th>Packing group</th>
</tr>
</thead>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)  
Classification code ADR:  
Limited quantities for ADR/RID:  
Packing Instructions for ADR/RID:  
Special packing provisions for ADR/RID:  
Mixed packing provisions:  
Portable tanks and bulk containers Instructions:  
Portable tanks and bulk containers Special Provisions:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL4-BI-INS-IRMA

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
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http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL4-BI-INS-IRMA

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHEmicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended.; Remove affected person from the danger area and lay down.;
Following inhalation: In case of respiratory tract irritation, consult a physician.; Provide fresh air.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting.; Give nothing to eat or drink.; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing.;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.;
Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 **Occupational exposure limits:**

- OSHA (USA)

8.1.2 **DNEL/PNEC-values:**

- DNEL worker

- DNEL consumer

- PNEC

8.2 **Exposure controls**

8.2.1 **Appropriate engineering controls:**
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 **Personal protective equipment:**
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 **Environmental exposure controls:**
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

---

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration mol/L</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
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<td><strong>PH</strong></td>
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<tr>
<td>Melting point (°C)</td>
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<tr>
<td>Freezing point (°C)</td>
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</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
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</tr>
<tr>
<td>Flash point (°C)</td>
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<td></td>
<td></td>
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<tr>
<td>Evaporation rate (kg/m²/h)</td>
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<td>Flammability (type : I) (%)</td>
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</table>
9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses; Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:

Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:
  - STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 **Mixtures**

No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

**12.1 Aquatic toxicity:**

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms
Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL4-BI-INS-IRMA
Version: US, Page 10 of 11, Revision date: 03/05/2019

ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS : Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage:
Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 **Product identifier:**

Designation / Trade name: CAL5-BI-INS-IRMA

CAS No.: 
Index No: 
EC No: 
REACH No: 

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

Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;

Uses advised against:

1.3 **Details of the supplier of the safety data sheet:**

Supplier:

Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 **EMERGENCY TELEPHONE NUMBER:**

France - Numéro ORFILA (INRS) : + 33 (0) 1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti - poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 **Classification of the substance or mixture:**

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 **Label elements**

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

**Product identifier:**

Designation / Trade name: CAL5-BI-INS-IRMA

Substances contained in this product:
2.3 Other hazards

The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European CHEmicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended.; Remove affected person from the danger area and lay down.;
Following inhalation: In case of respiratory tract irritation, consult a physician.; Provide fresh air.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting.; Give nothing to eat or drink.; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing.;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic.

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:

Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type :</td>
<td>(%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.2 Other information:
No other relevant data available

Section 10 : Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses. Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11 : Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects
Substances

- Acute toxicity
Animal data:

Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:

Assessment / Classification:

General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:

In-vitro skin test result:

Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:

In vitro eye test result:

Assessment / Classification:

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:

Animal data:

Other information:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

**Assessment / Classification:**

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 **Mixtures**

No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 **Aquatic toxicity:**

- **Acute (short-term) fish toxicity**

- **Chronic (long-term) fish toxicity**

- **Acute (short-term) toxicity to crustacea**

- **Chronic (long-term) toxicity to crustacea**

- **Acute (short-term) toxicity to algae and cyanobacteria**

- **Toxicity to microorganisms and other aquatic plants / organisms**
12.2 **Persistence and degradability**

**Biodegradation:**

**Abiotic Degradation:**

12.3 **Bioaccumulative potential**

Bioconcentration factor (BCF):

12.4 **Mobility in soil**

12.5 **Results of PBT and vPvB assessment**

12.6 **Other adverse effects:**

Additional ecotoxicological information:

13.1 **Waste treatment methods**

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

### Section 14: Transport information

**ADR/RID/AND/IMDG/IATA**

<table>
<thead>
<tr>
<th>UN No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard classes</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**Land transport (ADR/RID)**

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CALS-BI-INS-IRMA
Version: US, Page 10 of 11, Revision date: 03/05/2019

ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk: Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation: Hazard identification No:
Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EMS: Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage:
Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1 : Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: CAL6-BI-INS-IRMA
CAS No.: Index No.: EC No.: REACH No.:  

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

Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA - Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-毒物 Français. Ces centres anti-毒物 et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 4 66 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30 pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2 : Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL6-BI-INS-IRMA

Substances contained in this product:
Signal word:

Hazard and precautionary statements:

2.3 Other hazards
The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHEmicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing.;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions

Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up

For cleaning up: Suitable material for taking up: Absorbing material, organic;

Other information:

6.4 Reference to other sections

Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling

Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.;

Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;

Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet.; Remove contaminated, saturated clothing; Wash hands before breaks and after work.;

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: Keep container tightly closed.; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:

Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters

Preliminary remark:
8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
 Measures related to consumer uses of the substance (as such or in mixtures):
 Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.75</td>
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<td></td>
<td></td>
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<tr>
<td>Melting point (°C)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
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<td></td>
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<td></td>
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<tr>
<td>Initial boiling point (°C)</td>
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<td></td>
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</tr>
<tr>
<td>Flash point (°C)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Evaporation rate (kg/m²/h)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Upper/lower flammability or explosive limits

<table>
<thead>
<tr>
<th>Upper explosive limit (%)</th>
<th>Lower explosive limit (%)</th>
</tr>
</thead>
</table>

### Vapour pressure (kPa)

### Vapour density (g/cm³)

### Densities

- Density (g/cm³)
- Relative density (g/cm³)
- Bulk density (g/cm³)
- Critical density (g/cm³)

### Solubility (Type: J) (g/L)

### Partition coefficient (log Pow)

### n-octanol/water at pH:

### Auto-ignition temperature (°C)

### Decomposition temperature (°C)

### Decomposition energy: kJ

### Viscosity

- Viscosity, dynamic (poiseuille)
- Viscosity, cinemetic (cm³/s)

### Explosive properties

### Oxidising properties

---

#### Section 10: Stability and reactivity

**10.1 Reactivity**

This material is considered to be non-reactive under normal use conditions.

**10.2 Chemical stability**

**10.3 Possibility of hazardous reactions**

**10.4 Conditions to avoid:**

**10.5 Incompatible materials:**

**10.6 Hazardous decomposition products:**

Does not decompose when used for intended uses. Thermal decomposition can lead to the escape of irritating gases and vapors.

---

#### Section 11: Toxicological information

Toxicokinetics, metabolism and distribution

**11.1 Information on toxicological effects**

**Substances**

- **Acute toxicity**
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

**11.1.1 Mixtures**

No toxicological information is available for the mixture itself

### Section 12 : Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

#### 12.1 Aquatic toxicity:

- **Acute (short-term) fish toxicity**

- **Chronic (long-term) fish toxicity**

- **Acute (short-term) toxicity to crustacea**

- **Chronic (long-term) toxicity to crustacea**

- **Acute (short-term) toxicity to algae and cyanobacteria**

- **Toxicity to microorganisms and other aquatic plants / organisms**
Assessment / Classification:

12.2 **Persistence and degradability**

**Biodegradation:**

**Abiotic Degradation:**

Assessment / Classification:

12.3 **Bioaccumulative potential**

Bioconcentration factor (BCF): 

12.4 **Mobility in soil**

12.5 **Results of PBT and vPvB assessment**

12.6 **Other adverse effects:**

Additional ecotoxicological information:

**Section 13 : Disposal considerations**

13.1 **Waste treatment methods**

Waste treatment options:
Dispose of waste according to applicable legislation;

Other disposal recommendations:
Additional information:

**Section 14 : Transport information**

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

*Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code*

**Land transport (ADR/RID):**

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL6-BI-INS-IRMA
Version: US, Page 10 of 11, Revision date: 03/05/2019

ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS: Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 26/04/2019
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):

See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: CONT-BI-INS-IRMA

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

Relevant identified uses: Use of the substance or mixture for Research Use Only excepted products labelled In Vitro Diagnostic;

Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CONT-BI-INS-IRMA

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards
The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHEmicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CONT-BI-INS-IRMA
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Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing. ;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8). ;

6.2 Environmental precautions
Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained. ;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic ; Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ; Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ; Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety practice ; Observe technical data sheet. ; Remove contaminated, saturated clothing. ; Wash hands before breaks and after work. ;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed. ; Keep-store only in original container or in properly labeled containers ; Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:
8.1.1 **Occupational exposure limits:**

- OSHA (USA)

8.1.2 **DNEL/PNEC-values:**

- DNEL worker

- DNEL consumer

- PNEC

#### 8.2 Exposure controls

8.2.1 **Appropriate engineering controls:**
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 **Personal protective equipment:**
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 **Environmental exposure controls:**
Consumer exposure control

| Measures related to consumer uses of the substance (as such or in mixtures): |
| Measures related to the service life of the substance in articles: |

#### Section 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature [°C]</th>
<th>Pressure [kPa]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Solid;</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Colour</strong></td>
<td>White;</td>
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<tr>
<td><strong>Odour</strong></td>
<td></td>
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<tr>
<td><strong>Odour threshold [ppm]</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical properties</th>
<th>Value</th>
<th>Method</th>
<th>Temperature [°C]</th>
<th>Pressure [kPa]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Melting point [°C]</td>
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<tr>
<td>Freezing point [°C]</td>
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<tr>
<td>Initial boiling point/boiling range [°C]</td>
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<tr>
<td>Flash point [°C]</td>
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<tr>
<td>Evaporation rate [kg/m²/h]</td>
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<td></td>
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<tr>
<td>Flammability [type : %]</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses; Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalation toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

### 11.1.1 Mixtures

No toxicological information is available for the mixture itself

### Section 12 : Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

#### 12.1 Aquatic toxicity:

**Acute (short-term) fish toxicity**

**Chronic (long-term) fish toxicity**

**Acute (short-term) toxicity to crustacea**

**Chronic (long-term) toxicity to crustacea**

**Acute (short-term) toxicity to algae and cyanobacteria**

**Toxicity to microorganisms and other aquatic plants / organisms**
Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation;

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
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<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard classes</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID):
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
**Safety Data Sheet**

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CONT-BI-INS-IRMA

Version: US, Page 10 of 11, Revision date: 03/05/2019

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ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:

Hazard identification No: Transport category (Tunnel restriction code):

---

**Sea transport (IMDG)**

Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS: Stowage and segregation for IMDG:

---

**Inland waterway transport (ADN)**

Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage:

Number of blue cones/lights:

Remark:

---

**Air transport (ICAO-TI / IATA-DGR)**

Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:

ERG code: Special Provisions for IATA:

---

**Section 15 : Regulatory information**

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

15.2 Chemical Safety Assessment:

For the following substances of this mixture a chemical safety assessment has been carried out:

---

**Section 16 : Other information**

16.1 Indication of changes

Date of the previous version: 26/04/2019

Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):

See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):