



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 31-Mar-2023

Revision Number 2

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

### 1.1. Product identifier

Product Name UriSelect 4, 100 x 90 mm Plates

Catalogue Number(s) 63727

Pure substance/mixture Mixture

Contains Quartz, N,N-Dimethylformamide

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

Recommended use Restricted to professional users  
In vitro diagnostic

Uses advised against No information available

### 1.3. Details of the supplier of the safety data sheet

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad  
3 boulevard Raymond Poincaré  
92430 Marnes-la-Coquette  
France  
e-mail: fds-msds.fr@bio-rad.com

#### Legal Entity / Contact Address

Bio-Rad Laboratories Ltd  
The Junction  
Station Road  
Watford, WD17 1ET  
UK

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

For further information, please contact

Technical Service 00800 00246 723  
Ireland: Techsupport.UK@bio-rad.com  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### 1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670  
CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

|                 |                      |
|-----------------|----------------------|
| Carcinogenicity | Category 1A - (H350) |
|-----------------|----------------------|

|                       |                      |
|-----------------------|----------------------|
| Reproductive toxicity | Category 1B - (H360) |
|-----------------------|----------------------|

## 2.2. Label elements

Contains Quartz, N,N-Dimethylformamide



### Signal word

Danger

### Hazard statements

H350 - May cause cancer

H360 - May damage fertility or the unborn child

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

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

## 2.3. Other hazards

Contains animal source material. This product is a gel. In the gel state users should not be exposed to the cancer-causing crystalline powder. The carcinogen risk applies to the product if it dries out, such as during desiccation, improper storage, or disposal.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

| Chemical name                    | Weight-%     | REACH registration number | EC No (EU Index No)         | Classification according to Regulation (EC) No. 1272/2008 [CLP]                       | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|----------------------------------|--------------|---------------------------|-----------------------------|---|------------------------------------|----------|----------------------|
| Quartz<br>14808-60-7             | 1 - 2.5      | No data available         | 238-878-4                   | Carc. 1A (H350)   | Carc. 1A ::<br>C>=0.1%             | -        | -                    |
| N,N-Dimethylformamide<br>68-12-2 | 0.1 - 0.299  | No data available         | (616-001-00-X)<br>200-679-5 | Acute Tox. 4 (H312)<br>Acute Tox. 4 (H332)<br>Eye Irrit. 2 (H319)<br>Repr. 1B (H360D) | Repr. 1B ::<br>C>=0.1%             | -        | -                    |
| L-Tryptophan<br>73-22-3          | 0.01 - 0.099 | No data available         | 200-795-6                   | No data available   | -                                  | -        | -                    |

**Full text of H- and EUH-phrases: see section 16**

### Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

| Chemical name                    | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L                       | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm                         |
|----------------------------------|-----------------|-------------------|---|--|--|
| N,N-Dimethylformamide<br>68-12-2 | 2800            | 1100              | Inhalation LC50 Rat >5.85 mg/L 4 h (vapor, Source: ECHA_API) 5.85 | >5.85                                    | Inhalation LC50 Rat >5.85 mg/L 4 h (vapor, Source: ECHA_API) |
| L-Tryptophan<br>73-22-3          | 16000           | No data available | Inhalation LC50 Rat >5.75 mg/L 4 h (dust, Source: ECHA_API)       | >5.75                                    | Inhalation LC50 Rat >5.75 mg/L 4 h (dust, Source: ECHA_API)  |

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical name         | CAS No  | SVHC candidates |
|-----------------------|---------|-----------------|
| N,N-Dimethylformamide | 68-12-2 | X               |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                       |   |
|-----------------------|---|
| <b>General advice</b> | IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.   |
| <b>Inhalation</b>     | Remove to fresh air.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor. |
| <b>Skin contact</b>   | In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water.                 |
| <b>Ingestion</b>      | Rinse mouth.  |

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

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

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

|                        |                        |
|------------------------|------------------------|
| <b>Note to doctors</b> | Treat symptomatically. |
|------------------------|------------------------|

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                       |   |
|---------------------------------------|---|
| <b>Suitable Extinguishing Media</b>   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Large Fire</b>                     | CAUTION: Use of water spray when fighting fire may be inefficient.                                      |
| <b>Unsuitable extinguishing media</b> | Do not scatter spilled material with high pressure water streams.                                       |

### 5.2. Special hazards arising from the substance or mixture

|   |                           |
|---|---------------------------|
| <b>Specific hazards arising from the chemical</b> | No information available. |
|---|---------------------------|

### 5.3. Advice for firefighters

|   |   |
|---|---|
| <b>Special protective equipment and</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. |
|---|---|

precautions for fire-fighters Use personal protection equipment.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological Information.

### 6.3. Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store locked up. Store according to product and label instructions.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure Limits

| Chemical name                    | European Union                          | Austria                                 | Belgium                                 | Bulgaria                                   | Croatia                                 |
|----------------------------------|---|---|---|--|---|
| Quartz<br>14808-60-7             | TWA: 0.1 mg/m <sup>3</sup>              | TWA: 0.05 mg/m <sup>3</sup>             | TWA: 0.1 mg/m <sup>3</sup>              | TWA: 0.1 mg/m <sup>3</sup>                 | TWA: 0.1 mg/m <sup>3</sup>              |
| N,N-Dimethylformamide<br>68-12-2 | TWA: 15 mg/m <sup>3</sup><br>TWA: 5 ppm | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup> | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup> | STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup> | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup> |

|                                  |   |  |  |   |   |
|----------------------------------|---|--|--|---|---|
|                                  | *<br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup>   | STEL 10 ppm<br>STEL 30 mg/m <sup>3</sup><br>H*   | STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>D*   | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>K*   | STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>*   |
| Chemical name                    | Cyprus  | Czech Republic   | Denmark  | Estonia   | Finland   |
| Quartz<br>14808-60-7             | TWA: 0.1 mg/m <sup>3</sup>  | TWA: 0.1 mg/m <sup>3</sup>   | TWA: 0.3 mg/m <sup>3</sup><br>TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.6 mg/m <sup>3</sup><br>STEL: 0.2 mg/m <sup>3</sup> | TWA: 0.1 mg/m <sup>3</sup>  | TWA: 0.05 mg/m <sup>3</sup>   |
| N,N-Dimethylformamide<br>68-12-2 | *<br>STEL: 30 mg/m <sup>3</sup><br>STEL: 10 ppm<br>TWA: 15 mg/m <sup>3</sup><br>TWA: 5 ppm                  | TWA: 15 mg/m <sup>3</sup><br>Ceiling: 30 mg/m <sup>3</sup><br>D*                               | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>H*<br>STEL: 30 mg/m <sup>3</sup><br>STEL: 10 ppm                            | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>A*   | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>iho*         |
| Chemical name                    | France  | Germany TRGS   | Germany DFG  | Greece  | Hungary   |
| Quartz<br>14808-60-7             | TWA: 0.1 mg/m <sup>3</sup>  | -  | -  | TWA: 0.1 mg/m <sup>3</sup>  | TWA: 0.1 mg/m <sup>3</sup>  |
| N,N-Dimethylformamide<br>68-12-2 | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 30 mg/m <sup>3</sup><br>STEL: 10 ppm<br>*                  | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>H*  | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>Peak: 10 ppm<br>Peak: 30 mg/m <sup>3</sup><br>*                             | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>*  | TWA: 15 mg/m <sup>3</sup><br>STEL: 30 mg/m <sup>3</sup><br>b*   |
| Chemical name                    | Ireland   | Italy MDLPS  | Italy AIDII  | Latvia  | Lithuania   |
| Quartz<br>14808-60-7             | TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.3 mg/m <sup>3</sup>   | TWA: 0.1 mg/m <sup>3</sup>   | TWA: 0.025 mg/m <sup>3</sup>   | TWA: 0.1 mg/m <sup>3</sup>  | TWA: 0.1 ppm  |
| N,N-Dimethylformamide<br>68-12-2 | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>Sk*                | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>cute* | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>cute*   | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>Ada*   | O*<br>TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup>           |
| L-Tryptophan<br>73-22-3          | -   | -  | -  | TWA: 2 mg/m <sup>3</sup>  | -   |
| Chemical name                    | Luxembourg  | Malta  | Netherlands  | Norway  | Poland  |
| Quartz<br>14808-60-7             | -   | -  | TWA: 0.075 mg/m <sup>3</sup>   | TWA: 0.05 mg/m <sup>3</sup><br>TWA: 0.1 mg/m <sup>3</sup><br>TWA: 0.3 mg/m <sup>3</sup><br>STEL: 0.9 mg/m <sup>3</sup><br>STEL: 0.15 mg/m <sup>3</sup><br>STEL: 0.3 mg/m <sup>3</sup> | TWA: 0.1 mg/m <sup>3</sup>  |
| N,N-Dimethylformamide<br>68-12-2 | Peau*<br>STEL: 30 mg/m <sup>3</sup><br>STEL: 10 ppm<br>TWA: 15 mg/m <sup>3</sup><br>TWA: 5 ppm              | skin*<br>STEL: 30 mg/m <sup>3</sup><br>STEL: 10 ppm<br>TWA: 15 mg/m <sup>3</sup><br>TWA: 5 ppm | TWA: 15 mg/m <sup>3</sup><br>STEL: 30 mg/m <sup>3</sup><br>H*  | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>H*   | STEL: 30 mg/m <sup>3</sup><br>TWA: 15 mg/m <sup>3</sup><br>skóra*                                     |
| Chemical name                    | Portugal  | Romania  | Slovakia   | Slovenia  | Spain   |
| Quartz<br>14808-60-7             | TWA: 0.025 mg/m <sup>3</sup>  | TWA: 0.1 mg/m <sup>3</sup>   | TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.5 mg/m <sup>3</sup>  | TWA: 0.05 mg/m <sup>3</sup>   | TWA: 0.05 mg/m <sup>3</sup>   |
| N,N-Dimethylformamide<br>68-12-2 | TWA: 10 ppm<br>TWA: 30 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>Cutânea*          | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>P*    | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>K*<br>Ceiling: 30 mg/m <sup>3</sup>   | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>K*   | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>via dérmica* |
| Chemical name                    | Sweden  |  | Switzerland  |   | United Kingdom  |
| Quartz<br>14808-60-7             | NGV: 0.1 mg/m <sup>3</sup>  |  | TWA: 0.15 mg/m <sup>3</sup>  |   | TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.3 mg/m <sup>3</sup>   |
| N,N-Dimethylformamide<br>68-12-2 | NGV: 5 ppm<br>NGV: 15 mg/m <sup>3</sup><br>Bindande KGV: 10 ppm<br>Bindande KGV: 30 mg/m <sup>3</sup><br>H* |  | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>H*                            |   | TWA: 5 ppm<br>TWA: 15 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 30 mg/m <sup>3</sup><br>Sk*          |

## Biological occupational exposure limits

| Chemical name                    | European Union   | Austria  | Bulgaria  | Croatia  | Czech Republic   |
|----------------------------------|--|--|---|--|--|
| Quartz<br>14808-60-7             | -  | - () -   | -   | -  | -  |
| N,N-Dimethylformamide<br>68-12-2 | -  | <=50 U/I - (Serum transaminases SGOT) - not provided<br><=35 U/I - (Serum transaminases SGOT) - not provided<br><=50 U/I - (Serum transaminases SGPT) - not provided<br><=35 U/I - (Serum transaminases SGPT) - not provided<br><=66 U/I - (Serum transaminases GGT) - not provided<br><=39 U/I - (Serum transaminases GGT) - not provided | -   | 1.50 mg/L - blood (N,N-Dimethylformamide) - at the end of exposure for 4 hours<br>12 mg/g Creatinine - urine (N-Methylformamide) - at the end of the work shift<br>1.0 mg/L - blood (N-Methylformamide) - at the end of the work shift   | 0.029 mmol/mmol Creatinine (urine - N-Methylformamide end of shift)<br>15 mg/g Creatinine (urine - N-Methylformamide end of shift)   |
| Chemical name                    | Denmark  | Finland  | France  | Germany DFG  | Germany TRGS   |
| N,N-Dimethylformamide<br>68-12-2 | -  | -  | 40 mg/g creatinine - urine (Total N-Methylformamide) - end of shift   | 20 mg/L - urine (N,N-Methylformamide plus N-Hydroxymethyl-N-methylformamide) - end of shift<br>25 mg/g Creatinine - urine (N-Acetyl-S-(methyl carbamoyl)-L-cystein) - end of shift<br>25 mg/g Creatinine - urine (N-Acetyl-S-(methyl carbamoyl)-L-cystein) - for long-term exposures: at the end of the shift after several shifts | 20 mg/L (urine - N,N-Methylformamide plus N-Hydroxymethyl-N-methylformamide end of shift)<br>25 mg/g Creatinine (urine - N-Acetyl-S-(methyl carbamoyl)-L-cystein end of shift)<br>25 mg/g Creatinine (urine - N-Acetyl-S-(methyl carbamoyl)-L-cystein for long-term exposures: at the end of the shift after several shifts) |
| Chemical name                    | Hungary  | Ireland  | Italy MDLPS   | Italy AIDII  |  |
| N,N-Dimethylformamide<br>68-12-2 | 15 mg/L (urine - N-Methylformamide end of shift)<br>254 µmol/L (urine - N-Methylformamide end of shift)  | 15 mg/L - urine (N-Methylformamide) - post shift   | -   | 30 mg/L - urine (N-Methylformamide) - end of shift<br>30 mg/L - urine (N-Acetyl-S-(N-methylcarbamoyl) cysteine) - end of shift at end of workweek  |  |
| Chemical name                    | Latvia   | Luxembourg   | Romania   | Slovakia   |  |
| N,N-Dimethylformamide<br>68-12-2 | -  | -  | 15 mg/L - urine (Methyl-formamide) - end of shift   | 35 mg/L (urine - N-Methylformamide end of exposure or work shift)  |  |
| Chemical name                    | Slovenia   | Spain  | Switzerland   | United Kingdom   |  |
| N,N-Dimethylformamide<br>68-12-2 | 20 mg/L - urine (N-Methylformamide and N-Hydroxymethyl-N-methylformamide) - at the end of the work shift | 40 mg/L (urine - N-Acetyl-S-(N-methylcarbamoyl) cysteine start of last shift of workweek)<br>15 mg/L (urine -  | 20 mg/L (urine - N-Methylformamide and N-hydroxymethyl-N-methylformamide end of shift)<br>25 mg/g creatinine (urine - | -  |  |

|  |  |                                 |  |  |
|--|--|---------------------------------|--|--|
|  | 25 mg/g Creatinine - urine (N-Acetyl-S-(methylcarbamooyl)-methylformamide) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays | N-Methylformamide end of shift) | N-Acetyl-S-(methyl-carbamoyl)-L-cysteine end of shift, and after several shifts (for long-term exposures)) |  |
|--|--|---------------------------------|--|--|

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)**

## 8.2. Exposure controls

### Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

**Environmental exposure controls** No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                        |                          |
|------------------------|--------------------------|
| <b>Physical state</b>  | Solid                    |
| <b>Appearance</b>      | gel                      |
| <b>Colour</b>          | Opaque                   |
| <b>Odour</b>           | Varies.                  |
| <b>Odour threshold</b> | No information available |

| <u>Property</u>                               | <u>Values</u>     | <u>Remarks • Method</u>  |
|---|-------------------|--------------------------|
| <b>Melting point / freezing point</b>         | No data available | None known               |
| <b>Boiling point / boiling range</b>          | No data available | None known               |
| <b>Flammability (solid, gas)</b>              | No data available | None known               |
| <b>Flammability Limit in Air</b>              |                   | None known               |
| <b>Upper flammability or explosive limits</b> | No data available |                          |
| <b>Lower flammability or explosive limits</b> | No data available |                          |
| <b>Flash point</b>                            | No data available | None known               |
| <b>Autoignition temperature</b>               | 215 °C            |                          |
| <b>Decomposition temperature</b>              |                   | None known               |
| <b>pH</b>                                     |                   | None known               |
| <b>pH (as aqueous solution)</b>               | No data available | No information available |
| <b>Kinematic viscosity</b>                    | No data available | None known               |
| <b>Dynamic viscosity</b>                      | No data available | None known               |
| <b>Water solubility</b>                       | No data available | None known               |
| <b>Solubility(ies)</b>                        | No data available | None known               |
| <b>Partition coefficient</b>                  | No data available | None known               |

|                                   |                          |            |
|-----------------------------------|--------------------------|------------|
| <b>Vapour pressure</b>            | No data available        | None known |
| <b>Relative density</b>           | No data available        | None known |
| <b>Bulk density</b>               | No data available        |            |
| <b>Liquid Density</b>             | No data available        |            |
| <b>Vapour density</b>             | No data available        | None known |
| <b>Particle characteristics</b>   |                          |            |
| <b>Particle Size</b>              | No information available |            |
| <b>Particle Size Distribution</b> | No information available |            |

**9.2. Other information****9.2.1. Information with regards to physical hazard classes**

Not applicable

**9.2.2. Other safety characteristics**

No information available

**SECTION 10: Stability and reactivity****10.1. Reactivity****Reactivity** No information available.**10.2. Chemical stability****Stability** Stable under normal conditions.**Explosion data****Sensitivity to mechanical impact** None.**Sensitivity to static discharge** None.**10.3. Possibility of hazardous reactions****Possibility of hazardous reactions** None under normal processing.**10.4. Conditions to avoid****Conditions to avoid** None known based on information supplied.**10.5. Incompatible materials****Incompatible materials** None known based on information supplied.**10.6. Hazardous decomposition products****Hazardous decomposition products** None known based on information supplied.**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information****Inhalation** Specific test data for the substance or mixture is not available.**Eye contact** Specific test data for the substance or mixture is not available.**Skin contact** Specific test data for the substance or mixture is not available.**Ingestion** Specific test data for the substance or mixture is not available.



**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Acute toxicity****Numerical measures of toxicity****Component Information**

| Chemical name         | Oral LD50            | Dermal LD50          | Inhalation LC50         |
|-----------------------|----------------------|----------------------|-------------------------|
| N,N-Dimethylformamide | = 2800 mg/kg ( Rat ) | = 1100 mg/kg ( Rat ) | > 5.85 mg/L ( Rat ) 4 h |
| L-Tryptophan          | > 16 g/kg ( Rat )    | -                    | > 5.75 mg/L ( Rat ) 4 h |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitisation** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

| Chemical name         | European Union |
|-----------------------|----------------|
| N,N-Dimethylformamide | Repr. 1B       |

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**11.2. Information on other hazards****11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**11.2.2. Other information**

**Other adverse effects** No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity****Ecotoxicity**

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

| Chemical name         | Algae/aquatic plants                                  | Fish  | Toxicity to microorganisms | Crustacea   |
|-----------------------|---|---|----------------------------|---|
| N,N-Dimethylformamide | EC50: >500mg/L (96h, <i>Desmodesmus subspicatus</i> ) | LC50: =6300mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =9800mg/L (96h, <i>Oncorhynchus mykiss</i> )<br>LC50: =10410mg/L (96h, <i>Pimephales promelas</i> ) | -                          | EC50: =7500mg/L (48h, <i>Daphnia magna</i> )<br>EC50: =8485mg/L (48h, <i>Daphnia magna</i> )<br>EC50: 6800 - 13900mg/L (48h, <i>Daphnia magna</i> ) |

**12.2. Persistence and degradability**

**Persistence and degradability** No information available.

**12.3. Bioaccumulative potential****Bioaccumulation****Component Information**

| Chemical name         | Partition coefficient |
|-----------------------|-----------------------|
| N,N-Dimethylformamide | -1.028                |
| L-Tryptophan          | -1.06                 |

**12.4. Mobility in soil**

**Mobility in soil** No information available.

**12.5. Results of PBT and vPvB assessment****PBT and vPvB assessment**

| Chemical name         | PBT and vPvB assessment         |
|-----------------------|---------------------------------|
| N,N-Dimethylformamide | The substance is not PBT / vPvB |
| L-Tryptophan          | The substance is not PBT / vPvB |

**12.6. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**12.7. Other adverse effects**

No information available.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## SECTION 14: Transport information

**IATA**

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN number or ID number        | Not regulated  |
| 14.2 UN proper shipping name       | Not regulated  |
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| 14.5 Environmental hazards         | Not applicable |
| 14.6 Special Precautions for Users |                |
| Special Provisions                 | None           |

**IMDG**

|  |                          |
|--|--------------------------|
| 14.1 UN number or ID number                                  | Not regulated            |
| 14.2 UN proper shipping name                                 | Not regulated            |
| 14.3 Transport hazard class(es)                              | Not regulated            |
| 14.4 Packing group   | Not regulated            |
| 14.5 Environmental hazards                                   | Not applicable           |
| 14.6 Special Precautions for Users                           |                          |
| Special Provisions   | None                     |
| 14.7 Maritime transport in bulk according to IMO instruments | No information available |

**RID**

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN number                     | Not regulated  |
| 14.2 UN proper shipping name       | Not regulated  |
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| 14.5 Environmental hazards         | Not applicable |
| 14.6 Special Precautions for Users |                |
| Special Provisions                 | None           |

**ADR**

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN number or ID number        | Not regulated  |
| 14.2 UN proper shipping name       | Not regulated  |
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| 14.5 Environmental hazards         | Not applicable |
| 14.6 Special Precautions for Users |                |
| Special Provisions                 | None           |

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France****Occupational Illnesses (R-463-3, France)**

| Chemical name                    | French RG number | Title |
|----------------------------------|------------------|-------|
| Quartz<br>14808-60-7             | RG 25            | -     |
| N,N-Dimethylformamide<br>68-12-2 | RG 84            | -     |

**Germany**

**Water hazard class (WGK)** strongly hazardous to water (WGK 3)

**Netherlands**

| Chemical name         | Netherlands - List of Carcinogens | Netherlands - List of Mutagens | Netherlands - List of Reproductive Toxins |
|-----------------------|-----------------------------------|--------------------------------|---|
| Quartz                | Present                           | -                              | -   |
| N,N-Dimethylformamide | -                                 | -                              | Development Category 1B                   |

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorisations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

| Chemical name                   | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|---------------------------------|---|--|
| N,N-Dimethylformamide - 68-12-2 | 72.<br>30.<br>75.<br>76.                  | -  |

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**EU - Plant Protection Products (1107/2009/EC)**

| Chemical name       | EU - Plant Protection Products (1107/2009/EC) |
|---------------------|---|
| Quartz - 14808-60-7 | Plant protection agent                        |

**International Inventories**

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment****Chemical Safety Report**

No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H312 - Harmful in contact with skin  
H319 - Causes serious eye irritation  
H332 - Harmful if inhaled  
H350 - May cause cancer  
H360D - May damage the unborn child

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

| Classification procedure  |                    |
|---|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used        |
| Acute oral toxicity   | Calculation method |
| Acute dermal toxicity   | Calculation method |
| Acute inhalation toxicity - gas                                 | Calculation method |
| Acute inhalation toxicity - vapour                              | Calculation method |

|                                       |                    |
|---------------------------------------|--------------------|
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation             | Calculation method |
| Serious eye damage/eye irritation     | Calculation method |
| Respiratory sensitisation             | Calculation method |
| Skin sensitisation                    | Calculation method |
| Mutagenicity                          | Calculation method |
| Carcinogenicity                       | Calculation method |
| STOT - single exposure                | Calculation method |
| STOT - repeated exposure              | Calculation method |
| Acute aquatic toxicity                | Calculation method |
| Chronic aquatic toxicity              | Calculation method |
| Aspiration hazard                     | Calculation method |
| Ozone                                 | Calculation method |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
 European Chemicals Agency (ECHA) (ECHA\_API)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 National Institute of Technology and Evaluation (NITE)  
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
 Organisation for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Revision Note** Significant changes throughout SDS. Review all sections

**Revision date** 31-Mar-2023

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

**Disclaimer**

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**End of Safety Data Sheet**