

Material Safety Data Sheet (MSDS)

Isohelix *Xtreme*-RNA Isolation Kit

According to Regulation (EC) No 1907/2006, (EC) No 1272/2008

Version November 2021

Revision Date: 22/11/2021

Contents:

- Proteinase K
- Precipitation Solution
- Wash Solution
- Elution Solution

Proteinase K

1. Identification of the Substance/Mixture and of the Company/Undertaking:

Product name: Proteinase K
Manufacturer/Supplier: Cell Projects Ltd.

Substance Use: RNA Isolation

Further Information available from:
Cell Projects Ltd.,
Unit 2 Roebuck Business Park,
Ashford Road,
Harrietsham,
Kent ME17 1AB
Tel.: +44 (0) 1622 763741
Email: info@isohelix.com

Emergency Telephone Number: 999 (United Kingdom)
112 (Europe)
911 (US & Canada)

2. Hazards identification:

Classification of the Substance or Mixture: SKIN IRRITATION (Category 2)
EYE IRRITATION (Category 2)
RESPIRATORY SENSITISATION (Category 1)
SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE (Category 3)

Label Elements: WARNING, DANGER



H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

3. Composition/information on ingredients:

Substance:

| CAS | Component | Percent |
|------------|--------------|---------|
| 39450-01-6 | Proteinase K | 100 |

4. First-aid measures:

| | |
|--------------------------|---|
| General Advice: | Consult a Doctor/Physician, Show this safety data sheet to the Doctor in attendance. |
| After Contact with Eyes: | Immediately flush opened eyes with running water for at least 15 minutes. Call a Doctor. |
| After Contact with Skin: | Immediately wash skin with soap and copious amounts of water. Call a Doctor |
| After Inhalation: | Remove to fresh air and monitor breathing. If not breathing give artificial respiration. Call a Doctor. |
| After Swallowing: | Never give anything by mouth to an unconscious person. Wash out mouth with water provided person is conscious. Call a Doctor. |

5. Fire-fighting measures:

| | |
|---|---|
| Suitable Extinguishing agents: | CO ₂ , powder or water spray. |
| Special Hazards arising from the Substance: | Carbon Oxides |
| Advice for Firefighters: | Do not inhale combustion gases. Wear self-contained breathing apparatus if necessary. |

6. Accidental release measures:

| | |
|--------------------------------------|--|
| Personal Precautions: | Use personal protective equipment as detailed in Section 8. Ensure adequate ventilation. |
| Environmental Precautions: | Prevent seepage into drains. |
| Methods & Materials for Cleaning up: | Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. |

7. Handling and storage:

| | |
|--------------------------------|--|
| Precautions for safe handling: | Ensure adequate ventilation, minimise dust generation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. |
| Conditions for Safe Storage: | Store container in a cool, dry, & well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: +4°C - +8°C. |

8. Exposure controls/personal protection:

| | |
|---------------------|---|
| Control Parameters: | Personal Protective equipment: Eyes: Wear appropriate protective safety goggles. Respiratory: Use only with adequate ventilation. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Skin: Wear appropriate protective gloves. Clothing: Wear appropriate protective clothing. |
| Exposure Controls: | None listed. |

9. Physical and chemical properties:

| | |
|----------------------|---------------|
| Physical state: | Solid, Powder |
| Colour: | White |
| Odour: | None |
| Solubility in Water: | Soluble |
| Other properties: | N/A |

10. Stability and reactivity:

| | |
|-------------------------------------|---|
| Reactivity: | N/A |
| Stability: | Stable under normal temperatures and pressures. |
| Possibility of Hazardous Reactions: | N/A |
| Conditions to Avoid: | N/A |
| Incompatible Materials: | Strong oxidising agents. |
| Hazardous Decomposition Products: | N/A |

11. Toxicological information

Information on Toxicological effects:

Acute toxicity: No data available.
Irritant effect: Irritating to eyes, skin, mucous membranes and respiratory tract.
Sensitisation: May cause sensitisation through inhalation or skin contact.
Mutagenicity: No data available.
Carcinogenicity: No data available.
Reproductive Toxicity: No data available.
Specific target organ toxicity – Single Exposure: See Section 2.
Specific target organ toxicity – Repeated Exposure: No data available.
Aspiration Hazard: No data available.

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes serious eye irritation.

12. Ecological information:

Not available.

13. Disposal considerations:

Waste Treatment Methods: Dispose of in a manner consistent with state and local regulations.

14. Transport information:

Non-hazardous for transport.

15. Regulatory information:

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008

16. Other information:

This information is believed to be accurate and represents the best information based on our present knowledge, but does not purport to be all inclusive and shall be used only as a guide. It does not constitute a guarantee or warranty for any specific product feature and in no case shall the Cell Projects Ltd be liable for any claims, losses or damages, including lost profits resulting from handling or contact with the above product.

Precipitation Solution

1. Identification of the Substance/Mixture and of the Company/Undertaking:

| | |
|-------------------------------------|---|
| Product name: | Precipitation Solution |
| Manufacturer/Supplier: | Cell Projects Ltd. |
| REACH No.: | A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. |
| Substance Use: | RNA Purification |
| Further Information available from: | Cell Projects Ltd., Unit 2 Roebuck Business Park, Ashford Road, Harrietsham, Kent ME17 1AB Tel.: +44 (0) 1622 763741 Email: info@isohelix.com |
| Emergency Telephone Number: | 999 (United Kingdom) 112 (Europe) 911 (US & Canada) |

2. Hazards identification:

| | |
|---|---|
| Classification of the Substance or Mixture: | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. |
| Label Elements: | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. |
| Other Hazards: | This substance/mixture contains no components that are known to be either persistent, bio accumulative or toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher. |

3. Composition/information on ingredients:

Substance: Proprietary mixture.

| CAS | Component | Percent |
|---------------|-----------------------|---------|
| Not available | Non-hazardous mixture | 100 |

Additional Composition Information: NON-HAZARDOUS SUBSTANCE. All components listed or exempt.

4. First-aid measures:

| | |
|--------------------------|--|
| After Contact with Eyes: | Immediately flush opened eyes with running water as a precaution. |
| After Contact with Skin: | Immediately wash skin with soap and copious amounts of water. |
| After Inhalation: | Remove to fresh air and monitor breathing. If not breathing give artificial respiration. |
| After Swallowing: | Never give anything by mouth to an unconscious person. Wash out mouth with water provided person is conscious. |

5. Fire-fighting measures:

| | |
|---|---|
| Suitable Extinguishing agents: | CO ₂ , powder or water spray. |
| Special Hazards arising from the Substance: | None. Not combustible. |
| Advice for Firefighters: | Do not inhale combustion gases. Wear self-contained breathing apparatus if necessary. |

6. Accidental release measures:

| | |
|--------------------------------------|--|
| Personal Precautions: | Use personal protective equipment as detailed in Section 8. Ensure adequate ventilation. |
| Environmental Precautions: | None required. |
| Methods & Materials for Cleaning up: | Soak up with inert absorbent material and dispose of as general waste. Keep in suitable, closed containers for disposal. |

7. Handling and storage:

| | |
|--------------------------------|---|
| Precautions for safe handling: | Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. |
| Conditions for Safe Storage: | Store container in a cool place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Light sensitive. |

8. Exposure controls/personal protection:

| | |
|-------------------------------|--|
| Control Parameters: | Contains no substances with occupational exposure limit values. |
| Exposure Controls: | |
| Personal Protective equipment | <p>Eyes: Wear appropriate protective safety goggles where there is a likelihood of exposure. Not required under normal conditions of use.</p> <p>Respiratory: Use only with adequate ventilation. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Not required under normal conditions of use.</p> <p>Skin: Wear appropriate protective gloves. Not required under normal conditions of use.</p> <p>Clothing: Wear appropriate protective clothing. Not required under normal conditions of use.</p> |

9. Physical and chemical properties:

| | |
|----------------------|------------|
| Physical state: | Liquid |
| Colour: | Colourless |
| Odour: | N/A |
| Solubility in Water: | N/A |
| Other properties: | N/A |

10. Stability and reactivity:

| | |
|-------------------------------------|---|
| Reactivity: | Stable under recommended storage conditions. |
| Stability: | Stable under normal temperatures and pressures. |
| Possibility of Hazardous Reactions: | N/A |
| Conditions to Avoid: | N/A |
| Incompatible Materials: | Strong oxidising agents. |
| Hazardous Decomposition Products: | None under normal use conditions. |

11. Toxicological information

| | |
|---------------------------------------|---|
| Information on Toxicological effects: | <p>Acute toxicity: Not classified.</p> <p>Irritant effect: Not classified.</p> <p>Sensitisation: Not classified.</p> <p>Mutagenicity: Not classified.</p> <p>Carcinogenicity: Not classified.</p> <p>Reproductive Toxicity: Not classified.</p> <p>Specific target organ toxicity – Single Exposure: Not classified.</p> <p>Specific target organ toxicity – Repeated Exposure: Not classified.</p> <p>Aspiration Hazard: Not classified.</p> |
| Potential Health Effects: | <p>Inhalation: May cause irritation if inhaled. Non-corrosive.</p> <p>Ingestion: May be harmful if swallowed.</p> <p>Skin: May cause irritation to skin. Non-corrosive.</p> <p>Eyes: May cause irritation to eyes. Non-corrosive.</p> |

12. Ecological information:

| | |
|-------------------------------------|--|
| Toxicity: | No known significant effects or critical hazards. |
| Persistence and degradability: | Soluble in water. |
| Bioaccumulative potential: | Bioaccumulation is unlikely. |
| Mobility in soil: | No data available |
| Results of PBT and vPvB assessment: | This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher. |
| Other adverse effects: | None known. |

13. Disposal considerations:

Waste Treatment Methods: Dispose of in a manner consistent with state and local regulations.

14. Transport information:

Not classified as dangerous goods, and is non-hazardous for transport.

15. Regulatory information:

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

16. Other information:

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Wash Solution

1. Identification of the Substance/Mixture and of the Company/Undertaking:

Product name: Wash Solution
 Manufacturer/Supplier: Cell Projects Ltd.
 REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

Substance Use: RNA Purification

Further Information available from: Cell Projects Ltd.,
 Unit 2 Roebuck Business Park,
 Ashford Road,
 Harrietsham,
 Kent ME17 1AB
 Tel.: +44 (0) 1622 763741
 Email: info@isohelix.com

Emergency Telephone Number: 999 (United Kingdom)
 112 (Europe)
 911 (US & Canada)

2. Hazards identification:

Classification of the Substance or Mixture: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Label Elements: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Other Hazards: This substance/mixture contains no components that are known to be either persistent, bio accumulative or toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

3. Composition/information on ingredients:

Substance: Proprietary mixture.

| CAS | Component | Percent |
|---------------|-----------------------|---------|
| Not available | Non-hazardous mixture | 100 |

Additional Composition Information: NON-HAZARDOUS SUBSTANCE. All components listed or exempt.

4. First-aid measures:

After Contact with Eyes: Immediately flush opened eyes with running water as a precaution.
 After Contact with Skin: Immediately wash skin with soap and copious amounts of water.
 After Inhalation: Remove to fresh air and monitor breathing. If not breathing give artificial respiration.
 After Swallowing: Never give anything by mouth to an unconscious person. Wash out mouth with water provided person is conscious.

5. Fire-fighting measures:

Suitable Extinguishing agents: CO₂, powder or water spray.
 Special Hazards arising from the Substance: None. Not combustible.
 Advice for Firefighters: Do not inhale combustion gases. Wear self-contained breathing apparatus if necessary.

6. Accidental release measures:

| | |
|--------------------------------------|--|
| Personal Precautions: | Use personal protective equipment as detailed in Section 8. Ensure adequate ventilation. |
| Environmental Precautions: | None required. |
| Methods & Materials for Cleaning up: | Soak up with inert absorbent material and dispose of as general waste. Keep in suitable, closed containers for disposal. |

7. Handling and storage:

| | |
|--------------------------------|---|
| Precautions for safe handling: | Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. |
| Conditions for Safe Storage: | Store container in a cool place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Light sensitive. |

8. Exposure controls/personal protection:

| | |
|-------------------------------|--|
| Control Parameters: | Contains no substances with occupational exposure limit values. |
| Exposure Controls: | |
| Personal Protective equipment | <p>Eyes: Wear appropriate protective safety goggles where there is a likelihood of exposure. Not required under normal conditions of use.</p> <p>Respiratory: Use only with adequate ventilation. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Not required under normal conditions of use.</p> <p>Skin: Wear appropriate protective gloves. Not required under normal conditions of use.</p> <p>Clothing: Wear appropriate protective clothing. Not required under normal conditions of use.</p> |

9. Physical and chemical properties:

| | |
|----------------------|------------|
| Physical state: | Liquid |
| Colour: | Colourless |
| Odour: | N/A |
| Solubility in Water: | N/A |
| Other properties: | N/A |

10. Stability and reactivity:

| | |
|-------------------------------------|---|
| Reactivity: | Stable under recommended storage conditions. |
| Stability: | Stable under normal temperatures and pressures. |
| Possibility of Hazardous Reactions: | N/A |
| Conditions to Avoid: | N/A |
| Incompatible Materials: | Strong oxidising agents. |
| Hazardous Decomposition Products: | None under normal use conditions. |

11. Toxicological information

| | |
|---------------------------------------|---|
| Information on Toxicological effects: | <p>Acute toxicity: Not classified.</p> <p>Irritant effect: Not classified.</p> <p>Sensitisation: Not classified.</p> <p>Mutagenicity: Not classified.</p> <p>Carcinogenicity: Not classified.</p> <p>Reproductive Toxicity: Not classified.</p> <p>Specific target organ toxicity – Single Exposure: Not classified.</p> <p>Specific target organ toxicity – Repeated Exposure: Not classified.</p> <p>Aspiration Hazard: Not classified.</p> |
| Potential Health Effects: | <p>Inhalation: May cause irritation if inhaled. Non-corrosive.</p> <p>Ingestion: May be harmful if swallowed.</p> <p>Skin: May cause irritation to skin. Non-corrosive.</p> <p>Eyes: May cause irritation to eyes. Non-corrosive.</p> |

12. Ecological information:

| | |
|-------------------------------------|--|
| Toxicity: | No known significant effects or critical hazards. |
| Persistence and degradability: | Soluble in water. |
| Bioaccumulative potential: | Bioaccumulation is unlikely. |
| Mobility in soil: | No data available |
| Results of PBT and vPvB assessment: | This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher. |
| Other adverse effects: | None known. |

13. Disposal considerations:

Waste Treatment Methods: Dispose of in a manner consistent with state and local regulations.

14. Transport information:

Not classified as dangerous goods, and is non-hazardous for transport.

15. Regulatory information:

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

16. Other information:

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Elution Solution

1. Identification of the Substance/Mixture and of the Company/Undertaking:

| | |
|-------------------------------------|---|
| Product name: | Elution Solution |
| Manufacturer/Supplier: | Cell Projects Ltd. |
| REACH No.: | A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. |
| Substance Use: | RNA Purification |
| Further Information available from: | Cell Projects Ltd., Unit 2 Roebuck Business Park, Ashford Road, Harrietsham, Kent ME17 1AB Tel.: +44 (0) 1622 763741 Email: info@isohelix.com |
| Emergency Telephone Number: | 999 (United Kingdom) 112 (Europe) 911 (US & Canada) |

2. Hazards identification:

| | |
|---|---|
| Classification of the Substance or Mixture: | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. |
| Label Elements: | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. |
| Other Hazards: | This substance/mixture contains no components that are known to be either persistent, bio accumulative or toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher. |

3. Composition/information on ingredients:

Substance: Proprietary mixture.

| CAS | Component | Percent |
|---------------|-----------------------|---------|
| Not available | Non-hazardous mixture | 100 |

Additional Composition Information: NON-HAZARDOUS SUBSTANCE. All components listed or exempt.

4. First-aid measures:

| | |
|--------------------------|--|
| After Contact with Eyes: | Immediately flush opened eyes with running water as a precaution. |
| After Contact with Skin: | Immediately wash skin with soap and copious amounts of water. |
| After Inhalation: | Remove to fresh air and monitor breathing. If not breathing give artificial respiration. |
| After Swallowing: | Never give anything by mouth to an unconscious person. Wash out mouth with water provided person is conscious. |

5. Fire-fighting measures:

| | |
|---|---|
| Suitable Extinguishing agents: | CO ₂ , powder or water spray. |
| Special Hazards arising from the Substance: | None. Not combustible. |
| Advice for Firefighters: | Do not inhale combustion gases. Wear self-contained breathing apparatus if necessary. |

6. Accidental release measures:

| | |
|--------------------------------------|--|
| Personal Precautions: | Use personal protective equipment as detailed in Section 8. Ensure adequate ventilation. |
| Environmental Precautions: | None required. |
| Methods & Materials for Cleaning up: | Soak up with inert absorbent material and dispose of as general waste. Keep in suitable, closed containers for disposal. |

7. Handling and storage:

| | |
|--------------------------------|---|
| Precautions for safe handling: | Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. |
| Conditions for Safe Storage: | Store container in a cool place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Light sensitive. |

8. Exposure controls/personal protection:

| | |
|-------------------------------|--|
| Control Parameters: | Contains no substances with occupational exposure limit values. |
| Exposure Controls: | |
| Personal Protective equipment | <p>Eyes: Wear appropriate protective safety goggles where there is a likelihood of exposure. Not required under normal conditions of use.</p> <p>Respiratory: Use only with adequate ventilation. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Not required under normal conditions of use.</p> <p>Skin: Wear appropriate protective gloves. Not required under normal conditions of use.</p> <p>Clothing: Wear appropriate protective clothing. Not required under normal conditions of use.</p> |

9. Physical and chemical properties:

| | |
|----------------------|------------|
| Physical state: | Liquid |
| Colour: | Colourless |
| Odour: | N/A |
| Solubility in Water: | N/A |
| Other properties: | N/A |

10. Stability and reactivity:

| | |
|-------------------------------------|---|
| Reactivity: | Stable under recommended storage conditions. |
| Stability: | Stable under normal temperatures and pressures. |
| Possibility of Hazardous Reactions: | N/A |
| Conditions to Avoid: | N/A |
| Incompatible Materials: | Strong oxidising agents. |
| Hazardous Decomposition Products: | None under normal use conditions. |

11. Toxicological information

| | |
|---------------------------------------|---|
| Information on Toxicological effects: | <p>Acute toxicity: Not classified.</p> <p>Irritant effect: Not classified.</p> <p>Sensitisation: Not classified.</p> <p>Mutagenicity: Not classified.</p> <p>Carcinogenicity: Not classified.</p> <p>Reproductive Toxicity: Not classified.</p> <p>Specific target organ toxicity – Single Exposure: Not classified.</p> <p>Specific target organ toxicity – Repeated Exposure: Not classified.</p> <p>Aspiration Hazard: Not classified.</p> |
| Potential Health Effects: | <p>Inhalation: May cause irritation if inhaled. Non-corrosive.</p> <p>Ingestion: May be harmful if swallowed.</p> <p>Skin: May cause irritation to skin. Non-corrosive.</p> <p>Eyes: May cause irritation to eyes. Non-corrosive.</p> |

12. Ecological information:

| | |
|-------------------------------------|--|
| Toxicity: | No known significant effects or critical hazards. |
| Persistence and degradability: | Soluble in water. |
| Bioaccumulative potential: | Bioaccumulation is unlikely. |
| Mobility in soil: | No data available |
| Results of PBT and vPvB assessment: | This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher. |
| Other adverse effects: | None known. |

13. Disposal considerations:

Waste Treatment Methods: Dispose of in a manner consistent with state and local regulations.

14. Transport information:

Not classified as dangerous goods, and is non-hazardous for transport.

15. Regulatory information:

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

16. Other information:

This information is believed to be accurate and represents the best information based on our present knowledge, but does not purport to be all inclusive and shall be used only as a guide. It does not constitute a guarantee or warranty for any specific product feature and in no case shall the Cell Projects Ltd be liable for any claims, losses or damages, including lost profits resulting from handling or contact with the above product.